

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-17				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-W-12-013			Contract Period   04/30/2016   To   04/29/2017 Base                      Option Period Number       4			Title of Work Assignment/SF Site Name eManifest Second Year Rulemaking				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   04/30/2016   To   04/29/2017				
Comments: This initiates Work Assignment 4-17 "eManifest Second Year Rulemaking". Chris McMinimy is appointed the work assignment manager (WAM). The statement of work is attached. The contractor shall submit a work plan and cost estimate. Also, the contractor is not authorize to incur cost until 4/30/2016.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
04/30/2016 To 04/29/2017										
This Action:						0				
Total:						0				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee			LOE:			
Cumulative Approved:				Cost/Fee			LOE:			
Work Assignment Manager Name   Chris McMinimy  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>							Branch/Mail Code: Phone Number: 703-308-0105 FAX Number:			
Project Officer Name   Shannon Sturgeon  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>							Branch/Mail Code: Phone Number: 703-605-0509 FAX Number: 703-308-7903			
Other Agency Official Name  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>							Branch/Mail Code: Phone Number: FAX Number:			
Contracting Official Name   Eulvid Rocque  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>							Branch/Mail Code: Phone Number: 202-564-8316 FAX Number:			

## **Statement of Work**

26 April, 2016

Project Title: Economic Support for EPA's e-Manifest second-year rulemaking  
Contract No.: EP-W-12-013  
Work Assignment No.: 4-17  
Works Assignment Manager (COTR): Chris McMinimy, Economist  
EPA Office of Resource Conservation & Recovery (ORCR)  
703-308-0105  
Alt COTR:

Period of Performance: CO signature through April 29, 2017.

### **I. Introduction**

EPA is continuing work on a second e-Manifest rulemaking. The first rulemaking, referred to hereafter as the first-year rule, declares that electronic hazardous waste manifests are the legal equivalent of the existing paper manifests. It declares that these "e-manifests" may be submitted to EPA in lieu of paper manifests once an electronic system to collect, process and distribute them, aka "e-Manifest," has been built and turned on. The first-year rule declares EPA's intention to build an EPA-hosted and centralized e-Manifest system. Lastly, the first rule discusses issues relating to hazardous-waste-manifest data public access and electronic signature verification.

EPA's second rulemaking, referred to hereafter as the second-year rule, will determine the fees to be charged for use of the system and publish the date upon which the system will go live. This rulemaking will require economic support in the following areas:

1. Gathering information on business activity and practices within the hazardous waste generation, shipping, and TSFD sectors specific to the needs of this rule. This body of knowledge will help EPA estimate the costs and benefits of e-Manifest and will also help EPA determine the appropriate e-Manifest fees.
2. Producing a regulatory impact analysis (RIA) to accompany the second-year e-Manifest rulemaking. This RIA will estimate the costs and benefits of the e-Manifest system upon the affected universe of industrial entities, state governments, and federal agencies per the guidance found in OMB Circular A-4.



## **II. Purpose and Scope of this Work Assignment Modification**

The purpose of this Work Assignment Modification is to add scope to the existing Work Assignment 3-17, specifically to Task 4. Under Task 4 the contractor was directed to produce chapters for the second year rule RIA from outlines and model output provided by the WAM. Several of the RIA chapters, however, build on research and analysis already done by the contractor. These chapters can be written without the same level of input and guidance from the WAM. Additional scope is necessary for this work to cover the greater level of planning execution that the contractor will have to undertake.

## **III. Work Statement**

### **Task 1.                      Work Plan, Progress Reports and Budget**

Within twenty (20) days of receipt of this work assignment, the contractor shall deliver a work plan. This plan shall include a proposed level of effort, budget, schedule of tasks, and schedule of deliverables. A cost proposal shall accompany this work plan.

All data collection, assessment, and quality issues associated with this Work Assignment shall adhere to EPA data quality guidance and requirements, as established in EPA Order 5360.1A2, EPA Manual 5360.A1, and OSWER's and ORCR's Quality Management Plans. See: [http://www.epa.gov/quality/qa\\_docs.html](http://www.epa.gov/quality/qa_docs.html)

As part of the monthly progress reports for this Work Assignment, the Contractor shall provide a summary of all data collection and quality control activities conducted during each month.

No confidential business information (CBI) shall be collected or used under this Work Assignment. However, proprietary data may be used following written approval from the WAM/TOCOR.

Contractor travel is authorized under this Work Assignment. The contractor shall budget for no more than one overnight trip for two or less persons, round trip from Cambridge/Boston, MA to Arlington, VA/Washington, D.C.

### **Deliverable(s) and Schedule:**

Work Plan and Budget within allotted time frame identified above.

## **Task 2:**                      **Programmatic Support**

The contractor shall provide programmatic support in the area of short-term or quick turnaround technical assistance, analysis, and supporting documents to ORCR for the “**e-Manifest second-year proposed rule,**” and related work.

Under this task the contractor shall develop and submit various general support documents and analyses directly or indirectly related to the proposed rule. Examples of such documents/analyses may include, but not be limited to:

- cost or cost savings summary tables addressing impacts of one or more of the regulatory improvement areas;
- briefing packages;
- fact sheets, flow charts, or presentation graphics;

The need for and number of such documents is uncertain at the time of this work assignment. The WAM will provide a Technical Directive (TD) designed to clarify the need and scope of such document(s), as necessary. The contractor shall budget for approximately three (3) TDs under this Task.

### **Deliverable(s) and Schedule:**

<b>DELIVERABLES</b>	<b>DUE DATES</b>
Development of quick-turnaround support documents and analyses related to the rule:  To be defined in each TD (e.g., briefing package, fact sheet)	<u>Draft</u> : Five (5) Agency working days from contractor receipt of TD, and all supporting information.  <u>Final</u> : Five (5) Agency working days from contractor receipt of all written WAM comments on the draft.

## **Task 3:**                      **Respond to RIA Comments**

Under this task the contractor shall assist EPA in responding to EPA, OMB, and Inter-agency comments on the RIA. Work under this task may involve producing briefing materials and one pagers containing comment responses. It may also include making revisions and additions to the RIA document as needed. Specific work to be done under this task shall be provided to the contractor by a WAM technical directive (TD). The RIA revisions produced by the contractor shall meet the following standards:

- All final deliverables and documents prepared under this Task shall be clear, concise, well organized, properly referenced, and complete;
- All final documents presented under this task shall be technically accurate, defensible, free of errors, and editorially correct (e.g., free of typographic and grammatical errors);

- All written materials prepared for use by the public shall follow the “Plain English” style of writing unless specifically stated otherwise in the task order; and,
- All materials presented under this task shall be delivered according to EPA-specified delivery schedules.

**Deliverable(s) and Schedule:**

DELIVERABLES	DUE DATES
Revisions	<p><u>Draft Revisions:</u> Timelines for completion will be specified in a WAM TD.</p> <p><u>Final Revisions:</u> Timelines for completion will be specified in a WAM TD.</p>

**Task 4:**                      **Produce Final RIA Document**

Under this task the contractor shall provide review and final versions of the RIA to submit to the FAR review process for the final rule, to the OMB review of the final rule, to the docket and federal register notice for the final rule, and to any other review or exposition of the final rule that may occur. Specific work to be done under this task shall be outlined in a WAM technical directive. The RIA produced by the contractor shall meet the following standards:

- All final deliverables and documents prepared under this Task shall be clear, concise, well organized, properly referenced, and complete;
- All final documents presented under this task shall be technically accurate, defensible, free of errors, and editorially correct (e.g., free of typographic and grammatical errors);
- All written materials prepared for use by the public shall follow the “Plain English” style of writing unless specifically stated otherwise in the task order; and,
- All materials presented under this task shall be delivered according to EPA-specified delivery schedules.

**Deliverable(s) and Schedule:**

The deliverables for this task shall consist of the draft and final versions of the RIA document.

DELIVERABLES	DUE DATES
RIA Document	<u>RIA Document</u> : Due dates under this task shall be provided to the contractor in a WAM technical directive.

**WORK ASSIGNMENT ADDITIONAL REQUIREMENTS  
OFFICE OF RESOURCE CONSERVATION AND RECOVERY**

The following additional terms and conditions are requirements of this task order:

**TECHNICAL DIRECTION**

In accordance with EPAAR 1552.237-71–*Technical Direction*, the WAM will provide Technical Direction during performance of this Work Assignment. Technical direction includes:

1. Instruction to the contractor that approves approaches, solutions, designs, or refinements; fills in details; completes the general description of work; shifts emphasis among work areas or tasks; and
2. Evaluation and acceptance of reports or other deliverables.

Technical Direction must be within the scope of the contract-level SOW. The WAM does not have the authority to issue Technical Direction which:

1. Requires additional work outside the scope of the contract or Work Assignment;
2. Constitutes a change as defined in the "Changes" clause;
3. Causes an increase or decrease in the estimated cost of the contract or Work Assignment;
4. Alters the period of performance of the contract or Work Assignment; or
5. Changes any of the other express terms or conditions of the contract or Work Assignment.

Technical Direction will be issued in writing by the WAM, or confirmed by the WAM in writing within five (5) calendar days after oral issuance, if oral instruction provided.

**QUALITY ASSURANCE**

Performance under this Work Assignment requires the contractor to prepare a Quality Assurance Project Plan (QAPP) to be included as part of the Work Assignment. The contractor shall submit a QAPP with its Work Plan in accordance with *EPA Requirements for Quality Assurance Project Plans (QA/R-5)* found here: <http://www.epa.gov/QUALITY/qs-docs/r5-final.pdf>. The contractor's QAPP must be approved by the WAM and Quality Assurance Manager before Work Plan approval. Following approval of the contractor's QAPP, the contractor shall perform all tasks under this Work Assignment in accordance with the quality standards established in the QAPP.

**SURVEY MANAGEMENT**

Performance under this Work Assignment may require the contractor to create statistical surveys, perform data collection, use questionnaires, or perform statistical analysis of survey data. The contractor shall perform these tasks in accordance with the *EPA Survey Management Handbook* found here: <http://www.epa.gov/oamcinc1/0710295/attach12.pdf>.

**COMMUNICATIONS PRODUCTS**

Performance under this Work Assignment may require the contractor to develop deliverables that are considered by EPA to be "Communications Products." If relevant, the contractor shall develop Communications Products in accordance with *EPA's Policy and Implementation Guide for Communications Product Development and Approval* found here: <http://www.epa.gov/productreview/guide/index.html>. Additionally, if Communications Products require the use of EPA graphics, logos, or other identifiable materials, the Communications Products are further subject to the standards in *EPA's Visual and Product Standards Graphics Manual* found here: <http://wedcor.cor.epa.gov/pages/TIM/VisualIdentity-6-19-07.pdf>.

Work Assignment Form. (WebForms v1.0)

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-19				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-W-12-013			Contract Period   04/30/2016   To   04/29/2017 Base                      Option Period Number       4			Title of Work Assignment/SF Site Name Historical comparison CERCLA				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   04/30/2016   To   04/29/2017				
Comments: This is to initiate WA 4-19 entitled "Historical comparison CERCLA". Bill Kline is appointed the work assignment manager (WAM) and Michael Pease is appointed the alt. WAM. The statement of work is attached. The contractor shall submit a work plan and cost estimate. Also, the contractor is not authorize to incur cost										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
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5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
04/30/2016 To 04/29/2017										
This Action:						0				
Total:						0				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee			LOE:			
Cumulative Approved:				Cost/Fee			LOE:			
Work Assignment Manager Name    Bill Kline							Branch/Mail Code:			
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"><span>(Signature)</span><span>(Date)</span></div>							Phone Number: 540-341-3631			
							FAX Number:			
Project Officer Name    Shannon Sturgeon							Branch/Mail Code:			
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"><span>(Signature)</span><span>(Date)</span></div>							Phone Number: 703-605-0509			
							FAX Number: 703-308-7903			
Other Agency Official Name							Branch/Mail Code:			
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							FAX Number:			
Contracting Official Name    Eulvid Rocque							Branch/Mail Code:			
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"><span>(Signature)</span><span>(Date)</span></div>							Phone Number: 202-564-8316			
							FAX Number:			

**Statement of Work**  
**EPA Contract No. EP-W-12-013**  
**Work Assignment No. 4-19**

**Title:** Provide Analytical Support for Justifying Applicability of CERCLA 108(b) Financial Assurance Requirements to Hard Rock Mining and Processing Facilities

**EPA Work Assignment Manager:** William Kline

Office of Resource Conservation and Recovery (5303P)

Email: kline.bill@epa.gov

Phone: (540) 341-3631

Fax: (540) 349-9181

**EPA Alternative WAM:**

Michael Pease

Office of Resource Conservation and Recovery (5303P)

Email: pease.michael@epa.gov

Phone: (703) 308-0008

**Background**

The Office of Resource Conservation and Recovery (ORCR) is developing a proposed rule to apply financial assurance requirements for hard rock mining and processing facilities. A proposed rule for the hard rock mining and mineral processing industry is currently scheduled for publication in December 2016. The authorizing statute specifies that facilities establish and maintain evidence of financial responsibility “consistent with the degree and duration of risk associated with production, transportation, treatment, storage or disposal of hazardous substances.” Section 108(b) of CERCLA establishes regulatory authority with respect to financial responsibility requirements to compel classes of facilities to establish and maintain evidence of financial responsibility consistent with the degree and duration of risk associated with the production, transportation, treatment, storage, and disposal of hazardous substances. On July 28, 2009 (74 FR 37213), EPA identified hardrock mining facilities (i.e., extraction, beneficiation, and processing of ores and nonmetallic minerals) as the initial classes of facilities that will be subject to financial assurance requirements under CERCLA 108(b). As part of the ongoing effort to justify EPA applying financial assurance regulations to currently operating facilities within identified commodities and likewise excluding certain subsets of the hard rock mining and processing universe, EPA needs to better understand the releases and risks posed by these facilities.

**Task 1. Prepare Work Plan and Budget**

Within 20 calendar days of the receipt of this work assignment, the Contractor shall deliver a work plan. The work plan shall include: a description of the technical approach; the planned level of effort for each task by professional level; project organization; work assignment cost estimates for direct labor, other direct costs, and as otherwise required by the contract; and a schedule for significant milestones for deliverables. Project staffing should emphasize the rapid and accurate completion of the tasks in an efficient manner. In preparing the Work Plan, the contractor shall take into account the work prepared under previous applicable work assignments. Prior to initiating the Work Plan, the contractor shall have a teleconference with the EPA WAM to arrange obtaining these documents from EPA and address any questions or clarifications needed for preparing the work plan. The Contractor shall maintain at least weekly



communication with the EPA Work Assignment Manager, by phone and/or e-mail, to discuss the status of work under this work assignment. In addition, the Contractor shall prepare and deliver a monthly technical and financial progress report in conformance with the requirements of the contract.

<b>Deliverables</b>	<b>Due Date</b>
Work Plan	Within 20 days of effective date of work assignment
Progress Reports	Monthly

## **Task 2: Continue to Refine and Finalize Comprehensive Report**

Under previous Work Assignments 2-19 and 3-19, the contractor developed a draft comprehensive report that addresses the extent to which releases of CERCLA hazardous substances continue to occur at hard rock mining and processing facilities despite the implementation of Federal and State environmental regulatory programs and current mining/processing practices. EPA is continuing to have successive reviews of this draft report by HQ and Regional staff prior to finalizing it for subsequent submittal to the public docket for the proposed rulemaking. The contractor shall prepare up to three (3) re-drafts of this report, addressing comments provided by the EPA WAM.

Because this report will be part of the official public docket for the proposed rulemaking and likely will be referenced within the preamble, EPA also anticipates that additional comments pertaining specifically to this report will be submitted by the general public as well as representatives of the hard rock mining and processing industry. The contractor shall prepare up to three (3) re-drafts of this report, post-proposal, addressing comments provided by the EPA WAM.

<b>Deliverables</b>	<b>Due Date</b>
Draft Comprehensive Report (up to 3 re-drafts) for Proposed Rule Docket	Within 20 days of receiving comments from EPA WAM
Final Comprehensive Report for Proposed Rule Docket	Within 15 days of EPA WAM approval of draft comprehensive report
Post-Proposal Draft Revised Comprehensive Report (up to 3 re-drafts)	Within 90 days of receiving comments from EPA WAM
Post-Proposal Final Revised Comprehensive Report	Within 20 days of EPA WAM approval of draft revised comprehensive report

## **Task 3: Obtain Further Evidence and Documentation to Substantiate Not Including Certain Classes of the Regulated Universe.**

Using the initial overviews concerning small mines, placers, and exploration mines previously developed under WA 3-14, the contractor shall obtain additional evidence, address comments provided by the EPA WAM, and develop revised overviews for each of these three classes of facilities. These reports must have sufficient detail and accuracy to support EPA's justification not including these classes in the upcoming proposed financial assurance requirements for hard rock mining and processing facilities.

<b>Deliverables</b>	<b>Due Date</b>
Draft Write-up for Small Mines	Within 30 days of receiving comments from EPA WAM
Final Write-up for Small Mines	Within 10 days of EPA WAM approval of draft write-up
Draft Write-up for Placers	Within 30 days of receiving comments from EPA WAM
Final Write-up for Placers	Within 10 days of EPA WAM approval of draft write-up
Draft Write-up for Exploration Mines	Within 30 days of receiving comments from EPA WAM
Final Write-up for Exploration Mines	Within 10 days of EPA WAM approval of draft write-up

#### **Task 4. Provide Analytical Support in Evaluating the Applicability of CERCLA 108(b) Financial Assurance Requirements to Certain Classes of Hardrock Mining and Processing Facilities**

The contractor shall assist EPA in analyzing the releases of CERCLA hazardous substances by facilities in classes possibly being considered for coverage under the CERCLA 108(b) financial assurance requirements. Potential examples of these classes are brine extraction and highway/road borrow pits. EPA may need this analytical support to further refine the classes of facilities that should be subject to the CERCLA 108(b) financial assurance requirements and included in the regulations applicable to hardrock mining and processing. The contractor shall develop a draft overview for the subject class that substantiates the inclusion of, or conversely, not including the subject class of facilities in the CERCLA 108(b) regulation applicable to hardrock mining and processing facilities. As needed, the EPA WAM will issue a technical directive for these analytical support efforts. The contractor shall set aside 200 hours for this task.

#### **Deliverables and Schedule**

The Contractor shall provide an electronic file for each deliverable. The Contractor shall deliver electronic files in Word (or other approved formats when specified).

EPA anticipates that the final deliverables from Tasks 2, 3, and 4 will be made part of the rulemaking docket for the upcoming proposed rule regarding CERCLA 108(b) Financial Assurance for hard rock mining and processing facilities. As such, these deliverables must be of sufficient detail, organized, and properly documented, for potential submission to the public docket in support of the rulemaking. All aspects of data collection, processing, quality control, and reporting procedures shall be conducted and documented in accordance with industry-accepted guidelines and in accordance with ORCR's Quality Management Plan and EPA's Quality Manual for Environmental Programs (<http://www.epa.gov/quality>). The contractor will properly cite the environmental data used. No CBI data will be accessed or used. See also EPA Website: [http://www.epa.gov/quality/qa\\_docs.html](http://www.epa.gov/quality/qa_docs.html). When preparing documents that cite others' work as technical references, the contractor shall supply electronic versions of each technical reference cited, except when the reference consists of an online database (in which case the contractor shall supply a URL together with the date the data were accessed, and a description of any query language used).

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-19				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-W-12-013			Contract Period   04/30/2012   To   04/29/2017 Base                      Option Period Number       4			Title of Work Assignment/SF Site Name Hardrock Mining CERCLA 108 (b)				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   04/30/2016   To   04/29/2017				
Comments: The purpose of this amendment is to approve the contractor's work plan/cost estimate dated 05/18/2016 with LOE of 495 hours and \$59,916.22 (b)(4) cost (b)(4) fee). However, the contractor will not go over a \$35,000 ceiling unless approved by the contracting officer.										
<input type="checkbox"/> Superfund						Accounting and Appropriations Data				<input checked="" type="checkbox"/> Non-Superfund
SFO <span style="border: 1px solid black; padding: 2px;">22</span> Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
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Contract Period:		Cost/Fee:				LOE: 0				
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This Action:						495				
Total:						495				
Work Plan / Cost Estimate Approvals										
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Work Assignment Manager Name    Bill Kline  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 540-341-3631 FAX Number:				
Project Officer Name    Shannon Sturgeon  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 703-605-0509 FAX Number: 703-308-7903				
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<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>		Work Assignment Number 4-19								
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Contract Number EP-W-12-013	Contract Period   04/30/2016   To   04/29/2017 Base                      Option Period Number      4	Title of Work Assignment/SF Site Name Hardrock Mining								
Contractor INDUSTRIAL ECONOMICS, INCORPORATED		Specify Section and paragraph of Contract SOW								
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Comments: The purpose of this amendment is to REMOVE the previous amendment 1 ceiling of \$35,000. The approval of the contractor's work plan/cost estimate dated 05/18/2016 with a level of effort of 495 hours and \$59,916.22 (b)(4) cost (b)(4) fee) remains.										
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Contract Period:		Cost/Fee:		LOE: 495						
04/30/2016 To 04/29/2017										
This Action:				0						
Total:				495						
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Contractor WP Dated:				Cost/Fee				LOE:		
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Work Assignment Manager Name    Bill Kline							Branch/Mail Code:			
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							FAX Number:			
Contracting Official Name    Eulvid Rocque							Branch/Mail Code:			
_____ (Signature)                      (Date)							Phone Number: 202-564-8316			
							FAX Number:			

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-19				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000003				
Contract Number EP-W-12-013			Contract Period   04/30/2012   To   10/29/2017 Base                      Option Period Number       4			Title of Work Assignment/SF Site Name Financial Assurance CERCLA				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   04/30/2016   To   10/29/2017				
Comments: The amendment is to add 765 LOE hrs. to this work assignment. The total LOE is now 1,260 hrs. The statement of work is attached. The contractor shall submit a work plan and cost estimate as it relates to this request.										
<input type="checkbox"/> Superfund    Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:                      Cost/Fee:                      LOE: 04/30/2012   To   10/29/2017										
This Action:  										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:                      Cost/Fee                      LOE:										
Cumulative Approved:                      Cost/Fee                      LOE:										
Work Assignment Manager Name    Bill Kline  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>							Branch/Mail Code: Phone Number: 540-341-3631 FAX Number:			
Project Officer Name    Shannon Sturgeon  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>							Branch/Mail Code: Phone Number: 703-605-0509 FAX Number: 703-308-7903			
Other Agency Official Name  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>							Branch/Mail Code: Phone Number: FAX Number:			
Contracting Official Name    Mark Heare  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>							Branch/Mail Code: Phone Number: 202-564-4774 FAX Number:			

**Statement of Work**  
**EPA Contract No. EP-W-12-013**  
**Work Assignment No. 4-19**  
**Amendment No. 3**

**Title:** Provide Analytical Support for Justifying Applicability of CERCLA 108(b) Financial Assurance Requirements to Hardrock Mining and Mineral Processing Facilities

**EPA Work Assignment Manager:** William Kline

Office of Resource Conservation and Recovery (5303P)

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Phone: (540) 341-3631

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**EPA Alternative WAM:**

Michael Pease

Office of Resource Conservation and Recovery (5303P)

Email: pease.michael@epa.gov

Phone: (703) 308-0008

**Background**

The Office of Resource Conservation and Recovery (ORCR) is developing a rule to apply CERCLA 108(b) financial assurance requirements for hardrock mining and mineral processing facilities. A proposed rule for these requirements was signed on December 1, 2016 and subsequently published in the Federal Register on January 11, 2017. The public comment period for this proposed rule has been extended to July 11, 2017. EPA is now working towards the court ordered deadline for signature on the final rulemaking by December 1, 2017. EPA anticipates receiving a large number of public comments in response to the proposed rule, including mining companies/facilities, mining trade associations, environmental groups, Federal and State and regulatory agencies, and private citizens. EPA anticipates that commenters will claim additional justification is necessary to demonstrate the need for a CERCLA 108(b) financial assurance for hardrock mining facilities (hard rock mines and mineral processing facilities). EPA will need an intensive and efficient effort in order to meet this tight schedule. In order to meet this court-ordered deadline, it is imperative to get a jump start on developing responses to comments rather than waiting until the end of the public comment period in mid-July. The purpose of this amendment is to obtain contractor technical support to assist EPA in its task of addressing the public comments that provide additional information about releases of hazardous substances from hardrock mining and mineral processing facilities and/or dispute information about releases as used by EPA in developing the proposed rule. As such, EPA is amending this work assignment to add two tasks – Tasks 5 and 6.

**Prepare Work Plan and Budget**

Within 20 calendar days of the receipt of this work assignment, the Contractor shall deliver a work plan. The work plan shall include: a description of the technical approach, including a characterization of the data sources and methods the contractor intends to use to identify the info; the planned level of effort for each task by professional level; project organization; work assignment cost estimates for direct labor, other direct costs, and as otherwise required by the contract; and a schedule for significant milestones for deliverables. Project staffing should emphasize the rapid and accurate completion of the tasks in an efficient manner. In preparing the Work Plan, the contractor shall take into account the work prepared under previous applicable work assignments. Prior to initiating the Work Plan, the contractor shall have a teleconference with the EPA WAM to arrange obtaining these documents from EPA and address any questions or clarifications needed for preparing the work plan. The Contractor shall maintain at least weekly communication with the EPA Work Assignment Manager, by phone and/or e-mail, to discuss the

status of work under this work assignment. In addition, the Contractor shall prepare and deliver a monthly technical and financial progress report in conformance with the requirements of the contract.

## **Task 5. Provide Analytical Support to Assist EPA in Developing A Response to Comments Document**

In order to meet the December 1, 2017 court-ordered deadline, it is imperative that EPA gets a jump start on developing responses to comments (already submitted/anticipated) rather than waiting until the end of the public comment period in mid-July. As such, the contractor shall:

### **A. Develop a List of Comments for Which to Develop a Draft Response**

The contractor shall provide technical support to assist EPA in its task of addressing the public comments that provide additional information about releases of hazardous substances from hardrock mining and mineral processing facilities and/or dispute information about releases as used by EPA in developing the proposed rule. EPA anticipates that the more applicable comments will be linked to the preamble discussion *Continued Risk at Hardrock Mining Facilities* (see 82 FR 3470-3480), along with the supporting documentation cited in this preamble discussion, in particular, the *Comprehensive Report: An Overview of Practices at Hardrock Mining and Mineral Processing Facilities and Related Releases of CERCLA Hazardous Substances*, developed by IEc under this work assignment and 2) the *Releases from Hardrock Mining Facilities* document initially prepared by Jim Kuipers (subsequently amended by EPA HQ/Regional staff) will likely inspire numerous public comments. EPA anticipates that the primary focus of public comments will be: 1) the extent to which releases of CERCLA hazardous substances continue to occur at hardrock mining and mineral processing facilities, 2) the effect of the implementation of Federal and State environmental regulatory programs and 3) the extent to which current hardrock mining/mineral processing practices have changed.

The contractor shall assist EPA in analyzing the comment(s) received, using early comments provided by the EPA WAM, supplemented with comment summaries that will be developed by another contractor under a separate contract. IEc shall identify and submit to the EPA WAM an initial list of comments to be addressed. The contractor shall maintain, through the end of the public comment period, an ongoing list of comments needing a response.

### **B. Identify Information/Justification Needed to Support the Draft Response**

Upon receiving EPA approval of the comments to be addressed, the contractor shall identify the applicable information/data already in-hand available for addressing each of the public comments and, if necessary, make recommendations to EPA about additional evidence and documentation that should be obtained to further substantiate and/or justify a response. Upon approval by the EPA WAM, the contractor shall proceed to obtain or otherwise develop the additional evidence and documentation needed.

The longer term implications of releases at hardrock mining and mineral processing facilities is one of the topics that EPA anticipates will be raised in public comments and that likely will require the development of additional evidence and documentation. EPA needs to better understand the timeframe and likelihood of releases at hardrock mining and mineral processing facilities over the long-term. The contractor shall develop a write-up that addresses the long-term risks posed by releases of CERCLA hazardous substances at hardrock mining and mineral mineral processing facilities, taking into consideration, at a minimum the following:

1. The size of mines and the volume of mined ore, along with the resultant large volume of wastes, posing complex management issues due to the extensive size of open pits/pit lakes, tailing storage ponds, and waste rock piles.
2. The prediction of and methods available to prevent releases of hazardous substances. A common thread of uncertainty for these units is the accuracy of predictions concerning discharges to groundwater, formation and discharges of acid drainage, seepage of leachate and other mine



influenced water, pit lake chemistry, estimating the long-term geochemical behavior of mined materials, and sufficiency of monitoring data.

3. Sources within hardrock mines and mineral processing facilities that raise concern about releases including:
  - Exposure of ore material, e.g., in open pits, over very extensive areas to the effects of weathering and precipitation, resulting in groundwater contamination or surface water contamination,
  - Formation of pit lakes resulting in potential adverse water quality and subsequent groundwater contamination or surface water contamination,
  - Dissolution of contaminants in water flowing into or through underground mines,
  - Dissolution of contaminants in waste rock piles from precipitation runoff or from seepage, resulting in groundwater and surface water contamination,
  - Seepage from lined or unlined units e.g., tailing storage impoundments and leach operations, resulting in groundwater and surface water contamination.
  - Impacts of climatic and seasonal variability in concentrations and flow
4. The timeframe in which the onset of impacts from these sources may evolve and even be detected.

This report must have sufficient detail and accuracy to support EPA's concern about these releases in further justifying the need for CERCLA 108(b) financial assurance requirements at hardrock mining and mineral processing facilities.

### **C. Prepare the Draft Responses**

The contractor shall develop and submit to the EPA WAM a draft response to each of the comments identified to be addressed. In the interest of expediting review and approval of a response to comment, the contractor shall submit each draft response, as completed – rather than waiting until all draft responses to comments have been completed. The contractor shall assume that each draft response to comment might require up to three (3) re-drafts, to accommodate revisions provided by the EPA WAM, EPA management, and EPA attorneys.

### **D. Compile a Responses to Comments Document**

Upon approval of the draft responses to comments, the contractor shall develop and submit to the EPA WAM a draft Response to Comments document. Upon approval of the draft Response to Comments document by the EPA WAM, the contractor shall revise the document, as needed, and submit a final Response to Comments document to the EPA WAM.

## **Task 6. Provide Analytical Support to Assist EPA in Developing Additional Information Pertinent to Costs Associated with Cleanups at Hardrock Mining Facilities**

EPA needs to identify additional information related to the amounts of financial assurance in place at these facilities, the anticipated costs of cleanups, the nature of releases that occurred and other factual risk-informing data – to further demonstrate and justify the need for CERCLA 108(b) financial assurance at hardrock mining and mineral processing facilities. As part of evaluating the need for the rule, the Agency has identified recent damage cases at operating or recently-operating hardrock mines and currently is doing preliminary work on identifying information pertaining to the cleanup, including existing financial assurance, type of and costs of the cleanup. EPA is focusing on readily available information from the *Comprehensive Report* (developed by IEc), *Releases from Hardrock Mining Facilities* documents (prepared by Jim Kuipers, and supplemented with additional info from EPA Regional staff), and other in-house data sources (e.g., IFMS). However, EPA needs contractor support to fill information gaps. As such, the contractor shall:



### **A. Identify Supplemental Information about Clean-up of Releases at Currently Operating or Recently Operating Hardrock Mining Facilities**

The contractor shall review information about the clean-up of releases at approximately twelve (12) hardrock mining facilities, collected to date by EPA (as provided by the WAM), possibly including the following facilities:

- Barite Hill, South Carolina
- Beal Mountain, Montana
- Brewer Gold, South Carolina
- Cimarron Mine, New Mexico
- Formosa Mine, Oregon
- Gilt Edge, South Dakota
- Kendall Mine, Montana
- Mississippi Phosphate, Mississippi
- Silver Mountain Mine, Washington
- Summitville Mine, Colorado
- Zortman-Landusky, Montana

As a starting point, EPA used the following example format for displaying the pertinent information for each facility:

<b>Site</b>	<b>Barite Hill, SC</b>
<b>Years of Operation</b>	1989-1994
<b>Anticipated cost of Cleanup</b>	Total cost unclear. However, as of 2011, EPA has spent \$6.5M <sup>[1]</sup>
<b>Type of cleanup</b>	<e.g., CERCLA removal or remedial, FLMA response, federal CWA enforcement, State permit enforcement, etc.>
<b>Date of cleanup</b>	2007-present
<b>Was cleanup due to historic operations or modern operations?</b>	
<b>Amount of Bonding</b>	Unclear – Operator conducted mine reclamation activities from 1995 until bankruptcy in 1999
<b>How Remaining Liability is being Addressed</b>	EPA has taken removal actions and EPA-led cleanup is underway. Listed to NPL 2009
<b>How much is Left Unaddressed/Remains as Liability</b>	
<b>Other Important Information</b>	Operator went bankrupt in 1999. After closure, the 10 acre pit filled with water containing up to 60 million gallons of highly acidic water with high dissolved metals content. Furthermore, 250,000 cubic yards of acid-producing waste rock was left exposed.
<b>References</b>	

Because some of this information was derived from older CERCLIS expenditure data/web searches, the contractor shall ensure that all information ultimately used and presented in reports is the most current available.

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<sup>[1]</sup> IFMS data in HRC spreadsheet.

Taking into account the information already assembled and provided by EPA, the contractor shall further consider the information previously gathered for developing the *Comprehensive Report* and the *Releases at Hardrock Mining Facilities* document, for identifying additional damage cases. The contractor shall identify and collect additional publically available information related to the amounts of financial assurance in place at these facilities, the anticipated costs of cleanups (including EPA, state, and BLM expenditures), the nature of releases that occurred and other factual risk-informing data. If feasible, EPA needs to obtain anticipated costs and financial assurance information about cleanups – for which data was not available from EPA sources. The contractor shall first prepare an up-front summary of potentially available data sources, as well as obstacles and limitations that may impede their success regarding this effort.

The contractor shall develop a draft list of clean-ups at hardrock mining facilities for which sufficient information is readily available/obtainable for further analyses. For budgeting purposes, the contractor shall assume the collection, review, and analyses of information for up to thirty (30) clean-ups. Upon receiving approval of the list of clean-ups to be used, the contractor shall proceed, as needed, to gather the required information.

## **B. Analyze Information and Develop Summary Report**

The contractor shall analyze the information gathered to determine the conclusions that can be reached regarding the availability and adequacy of financial assurance at hardrock mining facilities, the extent to which taxpayers have been burdened with cleanup costs, and the extent to which environmental liabilities have been/remain to be addressed, taking into consideration, for example:

- there was no money, and Superfund or a state or other federal cleanup program had to fund cleanup activities
- there was inadequate money, and Superfund or a state or other federal cleanup program had to fund cleanup activities
- there was no money, no alternative source of funds has been identified, and liability remains, or
- there was inadequate money, no alternative source of funds has been identified, and liability remains.

The contractor shall develop draft and final summary reports that provide sufficient detail and accuracy to support EPA's concern about these releases in further justifying the need for CERCLA 108(b) financial assurance requirements at hardrock mining and mineral processing facilities, suitable for inclusion in the final rulemaking docket.

### **Deliverables and Schedule**

The Contractor shall provide an electronic file for each deliverable. The Contractor shall deliver electronic files in Word (or other approved formats when specified).

EPA anticipates these responses may be incorporated into the official public docket for the final rulemaking and also likely will be referenced within the preamble for the upcoming final rule regarding CERCLA 108(b) Financial Assurance for hardrock mining and mineral processing facilities. As such, these deliverables must be of sufficient detail, organized, and properly documented, for potential submission to the public docket in support of the rulemaking. All aspects of data collection, processing, quality control, and reporting procedures shall be conducted and documented in accordance with industry-accepted guidelines and in accordance with ORCR's Quality Management Plan and EPA's Quality Manual for Environmental Programs (<http://www.epa.gov/quality>). No CBI data will be accessed or used. See also EPA Website: [http://www.epa.gov/quality/qa\\_docs.html](http://www.epa.gov/quality/qa_docs.html). When preparing documents that cite others' work as technical references, the contractor shall supply electronic versions of each technical reference cited, except when the reference consists of an online database (in which case the contractor

shall supply a URL together with the date the data were accessed, and a description of any query language used).

<b>Deliverables</b>	<b>Due Date</b>
Work Plan	Within 20 days of effective date of work assignment
Task 5A: Develop an Initial List of Comments for Which to Develop a Draft Response	Within 5 days of approval of Work Plan
Task 5A: Recommendations about additional evidence and documentation needed	Within 10 days of approval of Work Plan
Task 5B: Obtain, as needed, additional evidence and documentation	Within 14 days of receiving approval from EPA WAM
Task 5B: Draft write-up that addresses long-term releases	Within 21 days of approval of from EPA WAM
Task 5B: Final write-up that addresses long-term releases	Within 10 days of receiving comments from EPA WAM on draft write-up
Task 5C: Prepare individual draft Responses to Comments	Within 10 days of obtaining additional evidence and documentation
Task 5D: Develop draft Response to Comments document	Within 14 days of receiving approval of draft Responses from EPA WAM
Task 5D: Develop final Response to Comments document	Within 10 days of EPA WAM approval of draft Response to Comments document
Task 6A: Develop an Initial List of Cleanups to Analyze	Within 10 days of approval of the Work Plan
Task 6A: Obtain, as needed, additional information	Within 10 days of receiving EPA WAM approval of list of cleanups
Task 6B: Draft Summary Report	Within 45 days of approval of the Work Plan
Task 6B: Final Summary Report	Within 10 days of receiving comments from EPA WAM on the draft Summary Report

Work Assignment Form. (WebForms v1.0)

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-23				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-W-12-013			Contract Period   04/30/2016   To   04/29/2017 Base                      Option Period Number      4			Title of Work Assignment/SF Site Name Revision of HW Rules				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   04/30/2016   To   04/29/2017				
Comments: This is to initiate Work Assignment 4-23 entitled "Revision of HW Rules". Robert Drew Lausch is appointed the work assignment manager (WAM). The statement of work is attached. The contractor shall submit a work plan and cost estimate. Also, the contractor is not authorize to incur cost until 4/30/2016.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:                      Cost/Fee:						LOE:   0				
04/30/2016   To   04/29/2017										
This Action:						0				
Total:						0				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:						Cost/Fee                      LOE:				
Cumulative Approved:						Cost/Fee                      LOE:				
Work Assignment Manager Name   Robert Lausch						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"> <span>(Signature)</span> <span>(Date)</span> </div>						Phone Number: 215-814-3359				
						FAX Number:				
Project Officer Name   Shannon Sturgeon						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"> <span>(Signature)</span> <span>(Date)</span> </div>						Phone Number: 703-605-0509				
						FAX Number: 703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"> <span>(Signature)</span> <span>(Date)</span> </div>						Phone Number:				
						FAX Number:				
Contracting Official Name   Eulvid Rocque						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"> <span>(Signature)</span> <span>(Date)</span> </div>						Phone Number: 202-564-8316				
						FAX Number:				

## **Statement of Work**

**CONTRACT NO.** EPW – 12 - 013

**Work Assignment No.** WA – 4 - 23

**Work Assignment  
Manager:**

Robert Lausch  
Office of Resource Conservation and Recovery  
MC 5304P  
1200 Pennsylvania Ave, NW  
Washington, DC 20460  
Phone: (703) 603-0721

**TITLE:** **Comment Response Support**

### **OBJECTIVE**

This Statement of Work (SOW) outlines tasks to be performed by Industrial Economics, Incorporated (IEc or contractor) in providing continued support to the U.S. Environmental Protection Agency (EPA or Agency) as part of the Agency's response to comments on the Hazardous Waste Generator Improvement Rule and Hazardous Waste Pharmaceuticals Rule. This reflects a continuation of work that began under WA 3-23 in option year #3.

### **BACKGROUND**

These rules are discussed in EPA's Semiannual Regulatory Agenda, which can be accessed at <http://www2.epa.gov/laws-regulations/regulatory-agendas-and-regulatory-plans> by searching the Regulation Identifier Number (RIN)

- Hazardous Waste Pharmaceuticals Rule (RIN 2050-AG39)
- Hazardous Waste Generator Improvement Rule (RIN 2050-AG70)

Both the Generator Improvements Rule and Pharmaceuticals Rule were proposed in the Federal Register on September 25, 2015 and public comment periods for each ended on December 24, 2015. All comments have been received by EPA.

As part of previous support to EPA, IEC uploaded all comments to a database for the purpose of sorting/organizing comments by topic and preparing reports/summaries in order to enable EPA to better evaluate and respond to comments. The organizing/sorting and report/summary preparation processes consisted of utilizing software (CommentWorks®) selected by IEC to accomplish this objective. IEC has already submitted comment issue reports for both rules, as well as four comment summaries for the Generator Improvements rule.

IEC support shall entail providing continued assistance in organizing/sorting comments and preparing reports/summaries. EPA has already provided input to IEC regarding particular types of summaries to be prepared (e.g., length, level of detail, identification of major issues, particular commenters), as well as the approach for organizing comments (e.g., by stakeholder), and the EPA WA manager (WAM) will provide further input, as necessary, throughout the period of performance of this WA, which ends on April 29, 2017.

For the purposes of this WA, EPA is estimating that three comment summaries will be required for the Generator Improvements rule and two comment summaries will be required for the Pharmaceuticals rule, as well as a response to comment document for the Generator Improvements rule.

## TASKS

### 1. Kickoff Meeting and Work Plan Development/Management

Prior to preparing the work plan (WP) or initiating any other task, IEc shall participate in a kickoff meeting with the EPA WAM to discuss current status, relative priorities and the nature/extent of remaining work to be performed in terms of providing comment response support for the aforementioned rules. The kickoff meeting will be held via teleconference call and shall occur within one week after receipt of the WA.

IEc shall prepare a draft summary of the kickoff meeting, submit this summary for the WAM to review and comment and, as necessary, incorporate comments provided by the WAM into a final kickoff meeting summary. The kickoff meeting summary shall include a plan of action for implementing this WA, taking these rules into account separately [Task 1A].

IEc shall also prepare and submit for review a WP, staffing plan, and budget based on information presented in this SOW and discussions during the kickoff meeting. IEc shall incorporate comments provided by the WAM into a final WP [Task 1B].

The WP shall lay out cost and labor hour estimates by task. In staffing this work, the contractor shall include personnel with experience in the review and analysis of public comments associated with proposed rulemaking. The contractor will also conduct general management activities under this task. These activities shall include such efforts as project financial administration, periodic participation in conference calls and/or meeting with the EPA WAM, preparation of monthly progress reports, contract administration and management efforts. The contractor shall also provide updates on the status of each task to the EPA WAM via telephone conversations at a frequency to be determined by the WAM.

In addition to the other requirements for the WP, approval of the WP for this assignment will be contingent upon the contractor's providing the basis for how Contract Management Costs will be calculated and reflected on each month's invoice.

Because the types of "data" involved in this SOW relate to organization of public comments, preparation of summaries, creation of associated reports and maintenance of a database, it is anticipated that quality assurance (QA) activities will not be extensive. As necessary, IEc shall briefly indicate in the WP how QA will be applied and include a brief (e.g., one paragraph or less) summary of QA activities in the monthly progress/invoice reports submitted to the WAM for this WA.

### 2. Comment Sorting/Organization and Summaries

The contractor shall continue to provide technical support in organizing public comments received on each of the aforementioned proposed rules. ***For the purposes of this WA, EPA assumes that CommentWorks® software will continue to be used, as necessary, to organize/sort comments and to generate reports/summaries. As such, EPA does not intend for IEc to establish a new database for this WA and will not take ownership of this database.***

This database shall continue to possess functionality to accomplish the following relevant tasks:

- Bracket and assign sections of comments by issue, including incorporating EPA re-bracketing requests.
- Create comment summaries and responses by issue outline section.
- Create reports that show comments, summaries, and responses by issue outline section.
- Create a Response to Comment document that includes all comments, summaries, and responses for this rulemaking.

Such support includes providing set-up (as necessary), hosting and maintenance for up to seven CommentWorks® users from EPA [Task 2A] and assisting EPA users with basic technical support (e.g.,

passwords, questions on system functionality and use) [Task 2B]. It is anticipated that EPA will require access to this database at least until September 30, 2016, although the necessity of extending this time frame until the end of the period of performance will be discussed at the kickoff meeting. ***IEc will not respond to comments directly unless assistance is requested by the rule writing team and, only then, based on technical direction provided by EPA's WAM.***

### 3. Additional Meetings

It is anticipated that all communications can be accomplished remotely through telephone calls, teleconference calls and e-mails; therefore, no travel-related costs are included as part of this WA. If the EPA WAM determines that it is necessary to more formally document communications, the WAM will develop a meeting agenda in consultation with IEc, after which IEc shall prepare a draft meeting summary, submit the summary for EPA review/comment and, as necessary, incorporate comments provided by the WAM into a final meeting summary. This WA allows for IEc preparation of up to two such meeting summaries.

### SCHEDULE OF DELIVERABLES

Deliverable	Due Date
Kickoff Meeting Summary [Task 1A]	Draft within five days after kickoff meeting and final within five days after receipt of EPA comments
Work Plan and Related Planning Documents [Task 1B]	Draft within 20 days of receipt of the WA and final within ten days after receipt of EPA comments
Provide access to database for EPA staff [Task 2A]	Within ten days after kickoff meeting (for staff who don't already have established accounts)
Technical support for database users [Task 2B]	Ongoing
Additional Meeting Summary [Task 3]	Draft within five days after kickoff meeting and final within five days after receipt of EPA comments
<i>Days shall mean calendar days unless otherwise specified by the EPA WAM.</i>	

### TECHNICAL DIRECTION

In accordance with EPAAR 1552.237-71–*Technical Direction*, the EPA WAM will provide Technical Direction during performance of this WA. Technical direction includes:

- (1) Instruction to the contractor that approves approaches, solutions, designs, or refinements; fills in details; completes the general description of work; shifts emphasis among work areas or tasks; and
- (2) Evaluation and acceptance of reports or other deliverables.

Technical Direction must be within the scope of the contract-level SOW. The EPA WAM does not have the authority to issue Technical Direction which:

- (1) Requires additional work outside the scope of the contract or WA;
- (2) Constitutes a change as defined in the "Changes" clause;
- (3) Causes an increase or decrease in the estimated cost of the contract or WA;
- (4) Alters the period of performance of the contract or WA; or
- (5) Changes any of the other express terms or conditions of the contract or WA.

Technical Direction will be issued in writing (e-mails will be considered acceptable to accomplish this purpose) by the EPA WAM or, in the case of oral issuance, confirmed by the WAM in writing within five (5) calendar days after oral issuance.



<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>		Work Assignment Number 4-23								
		<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001								
Contract Number EP-W-12-013	Contract Period   04/30/2012   To   04/29/2017 Base                      Option Period Number      4	Title of Work Assignment/SF Site Name Comment Response Support								
Contractor INDUSTRIAL ECONOMICS, INCORPORATED		Specify Section and paragraph of Contract SOW								
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval		Period of Performance  From   04/30/2016   To   04/29/2017								
Comments: The purpose of this amendment is to approve the contractor's work plan/cost estimate dated 06/14/2016 with a level of effort of 248 hours and \$41,615.24 (b)(4) cost (b)(4) fee. The contractor is not authorized to go over the approved ceilings without the approval from the Contracting Officer.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO    22                      Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
04/30/2012   To   04/29/2017				0						
This Action:				248						
Total:				248						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name   Robert Lausch						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 215-814-3359				
						FAX Number:				
Project Officer Name   Shannon Sturgeon						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 703-605-0509				
						FAX Number: 703-308-7903				
Other Agency Official Name   Jessica Young						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 703-308-0026				
						FAX Number:				
Contracting Official Name   Eulvid Rocque						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8316				
						FAX Number:				

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-23				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002				
Contract Number EP-W-12-013			Contract Period   04/30/2016   To   04/29/2017			Title of Work Assignment/SF Site Name				
			Base                      Option Period Number       4			Comment Response Support				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW All Tasks Identified in Amendment					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance  From   04/30/2016   To   04/29/2017					
Comments: The purpose of this amendment is to request an expedited cost estimate and work plan as it relates to attached revised Statement of Work for existing WA 4-23. The Contractor is to submit a revise cost estimate and work plan as in response to revised Statement of Work for existing WA 4-23.										
<input type="checkbox"/> Superfund					Accounting and Appropriations Data					<input checked="" type="checkbox"/> Non-Superfund
SFO <span style="border: 1px solid black; padding: 2px;">22</span> Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 248				
04/30/2016 To 04/29/2017										
This Action:						0				
Total:						248				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee			LOE:			
Cumulative Approved:				Cost/Fee			LOE:			
Work Assignment Manager Name   Robert Lausch							Branch/Mail Code:			
							Phone Number: 215-814-3359			
<div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							FAX Number:			
Project Officer Name   Shannon Sturgeon							Branch/Mail Code:			
							Phone Number: 703-605-0509			
<div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							FAX Number: 703-308-7903			
Other Agency Official Name   Jessica Young							Branch/Mail Code:			
							Phone Number: 703-308-0026			
<div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							FAX Number:			
Contracting Official Name   Eulvid Rocque							Branch/Mail Code:			
							Phone Number: 202-564-8316			
<div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							FAX Number:			

## **Statement of Work (Addendum)**

**CONTRACT NO.** EPW – 12 - 013

**Work Assignment No.** WA – 4 - 23

**Work Assignment Manager:** Robert Lausch  
Office of Resource Conservation and Recovery  
MC 5304P  
1200 Pennsylvania Ave, NW  
Washington, DC 20460  
Phone: (703) 603-0721

**TITLE:** **Comment Response Support**

### **OBJECTIVE**

This Statement of Work (SOW) serves as an **addendum** to the revised SOW developed by EPA in support of amendment #1 to this work assignment (WA), which reflected a reduced level of effort limited entirely to the proposed Hazardous Waste Generator Improvements Rule (RIN 2050-AG70). Industrial Economics, Incorporated (IEc) developed a revised work plan and budget based on EPA's revised SOW. EPA approved IEC's revised work plan and cost estimate and issued amendment #1 on June 16, 2016. **The period of performance remains unchanged.**

IEc has already completed tasks outlined in the revised work plan approved as part of amendment #1; as such, EPA is not requesting any additional support from IEC regarding the Generator Improvements rule. This SOW reflects the addition of limited tasks associated with the proposed Hazardous Waste Pharmaceuticals Rule (RIN 2050-AG39) to be performed by IEC. These tasks are described below.

### **WORK TO BE PERFORMED**

The contractor shall continue to provide technical support in organizing public comments received with a particular focus on the proposed Hazardous Waste Pharmaceuticals Rule. CommentWorks® software will continue to be used in a manner ensuring that this database possesses functionality to accomplish tasks such as organizing/sorting comments and generating reports/summaries. **Costs associated with maintaining the CommentWorks® data base have already been included within IEC's cost estimate, which was approved as part of amendment #1.**

IEc has already submitted a comment issue report for the Pharmaceuticals rule that was generated based on all comments received before the end of the public comment period (December 24, 2015). Since that time, however, EPA has received additional comments that have been added to the rulemaking Docket by the Agency and that will need to be addressed in the CommentWorks® data base. These comments are identified in the rulemaking Docket by suffixes "-0388" through "-0396," although some of these comments may represent duplicate entries.

### **Task 1 (Work Planning/Management)**

It will **not** be necessary for IEC to participate in a kickoff meeting since the nature/extent of work to be performed is focused, limited in scope and well-defined.

IEc shall prepare and submit for review a revised work plan, staffing plan, and budget based on information presented in this SOW. EPA anticipates that sufficient funds exist in this WA to complete work to be performed under this addendum to the revised SOW. IEC shall incorporate comments provided by the WAM into a final revised work plan. EPA anticipates that, consistent with the approach taken for this SOW, IEC's work plan would

be structured as an **addendum** to the existing work plan that focuses on performance of the limited tasks described herein – and that the staffing plan and budget would be addressed similarly.

The types of “data” associated with activities previously undertaken by IEC as part of this WA did not involve extensive quality assurance (QA) activities. This will also be the case for the particular tasks identified in this addendum to the SOW. As necessary, IEC shall briefly indicate in the revised WP how QA will be applied and include a brief (e.g., one paragraph or less) summary of QA activities in the monthly progress/invoice reports submitted to the WAM for this WA.

### **Task 2 (Comment Sorting/Organization)**

In consultation with EPA’s WA manager (WAM), IEC shall first determine the extent to which late comments that appear in the rulemaking Docket are duplicate entries. IEC shall identify all duplicate entries to EPA. After duplicate entries have been taken into account, IEC shall bracket late comments received on the proposed Pharmaceuticals rule and assign sections of comments by issue, including incorporating EPA re-bracketing requests into the CommentWorks® data base, such that the Agency will be able to generate comment issue reports. All late comments shall be flagged with the prefix “LATE” in CommentWorks®. Finally, IEC shall address certain comments in the existing comment issue report that are denoted by the prefix “DRAFT” (i.e., “DRAFT 0264,” “DRAFT 0278” and “DRAFT 0290”) by confirming whether or not these comments are duplicates of other comments already included in the rulemaking Docket (i.e., corresponding suffixes “-0231,” “-0247” and “-0250”). As necessary, EPA will provide additional clarification in this regard.

### **Task 3 (Additional Meetings)**

All communications can be accomplished remotely through telephone calls, teleconference calls and e-mails; therefore, no travel-related costs are included as part of this WA.

## **SCHEDULE OF DELIVERABLES**

Besides IEC’s work planning documents, the two primary deliverables identified in this addendum to the revised SOW are associated with completion of the following tasks: (1) bracketing late comments in the rulemaking Docket and assigning sections of comments by issue in CommentWorks® and (2) determining the extent to which draft-designated comments in CommentWorks® are duplicates of existing comments in the rulemaking Docket.

Under the existing WA, EPA’s access to the CommentWorks® data base ends on October 31, 2016. The Agency does not want to extend access to CommentWorks® beyond October 31<sup>st</sup>. Therefore, in addition to ensuring timely receipt of IEC’s work/staffing plan and budget for EPA approval, it will be necessary for IEC to complete these two tasks sufficiently soon thereafter to allow EPA to generate comment issue reports before October 31<sup>st</sup>.

## **TECHNICAL DIRECTION**

In accordance with EPAAR 1552.237-71–*Technical Direction*, the EPA WAM will provide Technical Direction during performance of this WA. Technical direction includes:

- (1) Instruction to the contractor that approves approaches, solutions, designs, or refinements; fills in details; completes the general description of work; shifts emphasis among work areas or tasks; and
- (2) Evaluation and acceptance of reports or other deliverables.

Technical Direction must be within the scope of the contract-level SOW. The EPA WAM does not have the authority to issue Technical Direction which:

- (1) Requires additional work outside the scope of the contract or WA;
- (2) Constitutes a change as defined in the "Changes" clause;
- (3) Causes an increase or decrease in the estimated cost of the contract or WA;

- (4) Alters the period of performance of the contract or WA; or
- (5) Changes any of the other express terms or conditions of the contract or WA.

Technical Direction will be issued in writing (e-mails will be considered acceptable to accomplish this purpose) by the EPA WAM or, in the case of oral issuance, confirmed by the WAM in writing within five (5) calendar days after oral issuance.

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>		Work Assignment Number 4-23								
		<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000003								
Contract Number EP-W-12-013	Contract Period   04/30/2016   To   04/29/2017 Base                      Option Period Number      4	Title of Work Assignment/SF Site Name Rev. of Hazardous Waste rules								
Contractor INDUSTRIAL ECONOMICS, INCORPORATED		Specify Section and paragraph of Contract SOW								
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval		Period of Performance  From   04/30/2016   To   04/29/2017								
Comments: This purpose of this amendment is to approves the contractor's work plan submittal and no cost reallocation of 48 hours dated 10/14/16. The total level of effort remains 248 hours and Cost/ Fee at \$41,615.24. The contractor is not authorize to go over the approved ceiling without the approval from the Contracting										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 248				
04/30/2016 To 04/29/2017										
This Action:						0				
Total:						248				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:		Cost/Fee				LOE:				
Cumulative Approved:		Cost/Fee				LOE:				
Work Assignment Manager Name   Robert Lausch  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number: 215-814-3359 FAX Number:				
Project Officer Name   Shannon Sturgeon  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number: 703-605-0509 FAX Number: 703-308-7903				
Other Agency Official Name  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name   Eulvid Rocque  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>(Signature)</div> <div>(Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-8316 FAX Number:				

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>		Work Assignment Number 4-23								
		<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000004								
Contract Number EP-W-12-013	Contract Period   04/30/2016   To   10/29/2017 Base                      Option Period Number      4	Title of Work Assignment/SF Site Name Revision HW rules								
Contractor INDUSTRIAL ECONOMICS, INCORPORATED		Specify Section and paragraph of Contract SOW								
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval		Period of Performance  From   04/30/2016   To   04/29/2017								
Comments: This amendment is to cancel/terminate this WA. Totals incurred for this WA are \$36,151.23 (b)(4) cost (b)(4) fee) and 128 LOE hrs.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> (Max 2)                      Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
04/30/2016   To   10/29/2017										
This Action:										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee				LOE:		
Cumulative Approved:				Cost/Fee				LOE:		
Work Assignment Manager Name   Robert Lausch							Branch/Mail Code:			
_____ (Signature)                      (Date)							Phone Number: 215-814-3359			
							FAX Number:			
Project Officer Name   Shannon Sturgeon							Branch/Mail Code:			
_____ (Signature)                      (Date)							Phone Number: 703-605-0509			
							FAX Number: 703-308-7903			
Other Agency Official Name							Branch/Mail Code:			
_____ (Signature)                      (Date)							Phone Number:			
							FAX Number:			
Contracting Official Name   Mark Heare							Branch/Mail Code:			
_____ (Signature)                      (Date)							Phone Number: 202-564-4774			
							FAX Number:			

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-25				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-W-12-013			Contract Period   04/30/2016   To   04/29/2017 Base                      Option Period Number      4			Title of Work Assignment/SF Site Name New Bedford Waste site Cost				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   04/30/2016   To   04/29/2017				
Comments: This initiate WA 4-25 "New Bedford Waste Site Cost". Nadine Thys is appointed the work assignment manager. The statement of work is attached. The contractor shall submit a work plan/cost estimate. Also, the contractor is not authorize to incur cost until 4/30/2016.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
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4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
04/30/2016 To 04/29/2017										
This Action:						0				
Total:						0				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name    Nadine Thys						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"> <span>(Signature)</span> <span>(Date)</span> </div>						Phone Number: 617-918-1419				
						FAX Number: 617-918-0419				
Project Officer Name    Shannon Sturgeon						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"> <span>(Signature)</span> <span>(Date)</span> </div>						Phone Number: 703-605-0509				
						FAX Number: 703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"> <span>(Signature)</span> <span>(Date)</span> </div>						Phone Number:				
						FAX Number:				
Contracting Official Name    Eulvid Rocque						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"> <span>(Signature)</span> <span>(Date)</span> </div>						Phone Number: 202-564-8316				
						FAX Number:				



**CONTRACT NAME:** ERAS Analytical Support Contract  
**CONTRACTOR:** Industrial Economics, Incorporated  
**CONTRACT NO.** EPW – 12-013

**Work Assignment No.** WA 4-25

**Contracting Officer  
Representative (COR):** Nadine Thys  
U.S. EPA Region 1  
Office of Site Remediation and Restoration  
Contracts Management Section  
5 Post Office Square, Suite 100  
Boston, MA 02109-3912  
Thys.nadine@epa.gov  
Phone: 617-918-1419  
Fax: 617-918-0419

**TITLE:** Financial Assessment of City of New Bedford Counter  
Settlement Offer(s) and Supporting Ability-to-Pay  
Rationales re: Parker Street Waste Site Cost Recovery

## **BACKGROUND**

The Parker Street Waste Site is an approximately 122-acre area redeveloped on and centered around a former city-owned landfill located in New Bedford, Bristol County, Massachusetts. Several residential and commercial properties were identified with elevated levels of polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and/ or heavy metals in soils at or near the surface, which posed an imminent and substantial endangerment to public health. From October 29, 2010 to August 22, 2012 EPA undertook a removal action to address these risks.

As the owner of the former landfill, EPA considers the City of New Bedford to be the Potentially Responsible Party and is seeking to recover a portion of the funding the agency expended in addressing the imminent and substantial endangerment presented by the City of New Bedford's former waste dump.

## **PURPOSE AND OBJECTIVES**

The purpose of this work assignment is to continue to have access to the services of expert financial analysts (e.g. a certified public account experienced in analyzing the fiscal vitality of municipalities) in order to review, verify and analyze the financial ability of the City of New Bedford to reimburse all or a portion of EPA's waste cleanup costs incurred at the Parker Street Waste Site. The contractor shall use, but is not limited to, the information provided by the City of New Bedford to EPA. The contractor shall provide data/information gathering and analysis that ensures a high quality and defensible

financial analysis. All aspects of data collection, review and verification shall be conducted and documented in accordance with financial industry-accepted guidelines.

### **Task 1: Work Plan**

Prepare and submit a Work Plan that includes a detailed description of the tasks activities, performance monitoring, and overall management strategy. Typical activities involved in preparing the staffing plan include, but are not limited to the following:

1. A staffing plan that identifies personnel who will work on the work assignment;
  2. A work schedule identifying significant milestones and deliverables;
  3. Quality assurance measures;
  4. A conflict of interest certification; and,
  5. A price proposal for performance of the work required on the work assignment, including a breakdown of the price per individual (identified by name) in each labor category, along with the cumulative estimated hours for each labor category.
- Other costs – including ODCs – shall be identified in the proposal.

### **Task 2: Data and Information Collection, Analysis and Management**

Utilizing a financial expert experienced in analyzing the fiscal vitality of municipalities in order to **review, verify and analyze the financial ability of the City of New Bedford to reimburse all or a portion of EPA's waste cleanup costs incurred at the Site.** The contractor shall use, but is not limited to, the information provided by the City of New Bedford to EPA and provided to the contractor. The contractor shall provide data/information gathering and analysis that ensures a high quality and defensible financial analysis. All aspects of data collection, review and verification shall be conducted and documented in accordance with financial industry-accepted guidelines. All documents prepared under this task shall respond to issues identified by EPA during the initial planning call and subsequent communications and include supporting references and rationale for the recommendations and conclusions given. The contractor shall ensure that all draft and final documents display financial accuracy, defensibility, are error-free and are editorially correct.

### **Task 3: Document Preparation**

All documents prepared under this task shall respond to issues identified by EPA and include supporting references and rationale for the recommendations and conclusions given. The contractor shall ensure that all draft and final documents display financial accuracy, defensibility, are error-free and are editorially correct.

### **Confidentiality Agreement**

The Contractor recognizes that the Contractor employees performing tasks specified by this task order may have access to data or information, either provided by the government or first generated during task order performance, of a sensitive nature which should not be released to the public without approval from the Environmental Protection Agency (EPA). Therefore, the Contractor agrees to obtain confidentiality agreements from each of its employees assigned to work on this task order (including subcontractors or consultants) before they perform any work under this task order. Such agreements shall contain provisions which stipulate that each employee agrees that the employee will not disclose, either in whole or in part, to any entity external to the EPA, the Department of Justice, or the Contractor, any information or data (as defined in FAR Section 27.401) provided by the government or first generated by the Contractor, any site-specific cost information, or any enforcement strategy without first obtaining the written permission of the EPA Project Officer. If a Contractor, through an employee or otherwise, is subpoenaed to testify or produce documents, which could result in such disclosure, the Contractor must provide immediate advance notifications to the EPA so that the EPA can take action to prevent such disclosure.

## Schedule of Deliverables

The contractor shall perform/submit the following tasks and deliverables at the timeframe specified below:

<b>Deliverable Title</b>	<b>Due Date</b>
Initial Planning Conference Call & Response to WA	Schedule call within 2 days of receipt of WA
Workplan, Staffing and Budget	Within 20 days of the initial planning call
EPA provide City's Counter Settlement Amount and Supporting Rationale	Immediately upon receipt from City
Contractor Review EPA-provided information	Within 3 days of receipt
Conference Call to Discuss Analysis of Counter Amount and Rationale	Within a week of receipt of information
Initial Written Analysis of Counter Amount and Rationale (if requested by EPA)	Within 3 days of conference call
Written Analysis of Counter Amount and Rational (if requested by EPA)	Within 3 days of discussion of initial written analysis
Repeat above 5 steps if EPA/City negotiations produce additional counters	

Note: All deliverables will be submitted to both the COR and any Regional lead case contact(s).

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-25				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-W-12-013			Contract Period   04/30/2012   To   04/29/2017 Base                      Option Period Number      4			Title of Work Assignment/SF Site Name Parker Street Landfill				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   04/30/2016   To   04/29/2017				
Comments: The purpose of this amendment is to approve the contractor's work plan/cost estimate dated 5/23/16 with a Level of Effort of 110 hours and \$14,563.20 (b)(4) cost (b)(4) fee). The contractor is not allowed to go over the approved ceiling without authorization from the Contracting Officer.										
<input type="checkbox"/> Superfund						Accounting and Appropriations Data				<input checked="" type="checkbox"/> Non-Superfund
SFO <span style="border: 1px solid black; padding: 2px;">22</span> Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
04/30/2012 To 04/29/2017										
This Action:						110				
Total:						110				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name    Nadine Thys  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 617-918-1419 FAX Number: 617-918-0419				
Project Officer Name    Shannon Sturgeon  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 703-605-0509 FAX Number: 703-308-7903				
Other Agency Official Name  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name    Eulvid Rocque  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-8316 FAX Number:				

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>		Work Assignment Number 4-25								
		<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002								
Contract Number EP-W-12-013	Contract Period   04/30/2016   To   10/29/2017 Base                      Option Period Number      4	Title of Work Assignment/SF Site Name New Bedford Waste site								
Contractor INDUSTRIAL ECONOMICS, INCORPORATED		Specify Section and paragraph of Contract SOW								
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval		Period of Performance  From   04/30/2016   To   04/29/2017								
Comments: This amendment is to cancel/terminate this WA. Totals incurred for this WA are \$3,131.35 (b)(4) cost (b)(4) fee) and 19 LOE hrs.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> (Max 2)                      Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
04/30/2016 To 10/29/2017										
This Action:										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee				LOE:		
Cumulative Approved:				Cost/Fee				LOE:		
Work Assignment Manager Name    Nadine Thys							Branch/Mail Code:			
_____ (Signature)                      (Date)							Phone Number: 617-918-1419			
							FAX Number: 617-918-0419			
Project Officer Name    Shannon Sturgeon							Branch/Mail Code:			
_____ (Signature)                      (Date)							Phone Number: 703-605-0509			
							FAX Number: 703-308-7903			
Other Agency Official Name    OAMREVIEW POC is Jennifer Cra							Branch/Mail Code:			
_____ (Signature)                      (Date)							Phone Number:			
							FAX Number:			
Contracting Official Name    Mark Heare							Branch/Mail Code:			
_____ (Signature)                      (Date)							Phone Number: 202-564-4774			
							FAX Number:			

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>		Work Assignment Number 4-26								
		<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:								
Contract Number EP-W-12-013	Contract Period   04/30/2012   To   04/29/2017 Base                      Option Period Number      4	Title of Work Assignment/SF Site Name Industrial Waste Measurement S								
Contractor INDUSTRIAL ECONOMICS, INCORPORATED		Specify Section and paragraph of Contract SOW								
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval		Period of Performance  From   11/21/2016   To   04/29/2017								
Comments: This action initiate WA 4-26 entitled "Industrial Waste Measurement Scoping Study." Chris Carusiello is appointed as the work assignment manager (WAM) and Rita Chow is appointed as the alt. WAM. The statement of work is attached. The contractor shall submit a work plan and cost estimate.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <span style="border: 1px solid black; padding: 2px;">22</span> Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
04/30/2012   To   04/29/2017				0						
This Action:				0						
Total:				0						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name   Chris Carusiello  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 703-308-8757 FAX Number:				
Project Officer Name   Shannon Sturgeon  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 703-605-0509 FAX Number: 703-308-7903				
Other Agency Official Name  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:				
Contracting Official Name   Eulvid Rocque  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-564-8316 FAX Number:				

**EPA CONTRACT NUMBER EP-W-12-013  
STATEMENT OF WORK**

**Work Assignment Number:** 4-26

**Title:** Industrial Waste Measurement Scoping Study with Generation & Management Pathways Estimates

**Work Assignment Manager (WAM):** Chris Carusiello

Email: Carusiello.Chris@epa.gov  
Address: IMRB/RCSD/ORCR/OLEM  
Mail Code 5306P  
1200 Pennsylvania Ave. N.W.  
Washington, D.C. 20460

Telephone: (703) 308-8757  
(703) 308-0522 (FAX)

**Alternate WAM:**

**Rita Chow**  
Email: Chow.Rita@epa.gov  
Mail Code 5306P  
1200 Pennsylvania Ave. N.W.  
Washington, D.C. 20460  
Telephone: (703) 308-6158

## **I. Background**

The U.S. Environmental Protection Agency (“EPA” or “the Agency”)’s Resource Conservation and Sustainability Division (RCSD) focuses on advancing Sustainable Materials Management (SMM). SMM refers to the use and reuse of materials in the most productive and sustainable way across their entire life cycle, an approach that has the potential to conserve resources, reduce waste, address climate change and minimize the environmental impacts of the materials we use.

Non-hazardous industrial wastes (including Bevill exempt wastes such as fossil fuel combustion waste; waste from the extraction, beneficiation, and processing of ores and minerals; and cement kiln dust) are the wastes and secondary materials (i.e., materials that are not the primary products from manufacturing and other industrial sectors) resulting from manufacturing commodities and products, such as coal ash from electricity production, iron and steel slag from metal production, mining wastes and inorganic chemical wastes (e.g., spent foundry sands). Beneficial use (BU) of secondary materials is the recycling or reuse of secondary materials that would otherwise be disposed. In this way, BU gives secondary materials a “second life”, and what once was thought



of as a costly burden for disposal, can actually become a valuable resource for the production of other commodities and products.

The Agency supports the beneficial use of non-hazardous industrial secondary materials when conducted in an environmentally appropriate manner. EPA has developed a number of tools and assessments to support state regulators and industry stakeholders with their BU evaluations. For more information on the Agency's SMM BU efforts, see: <https://www.epa.gov/smm/sustainable-management-industrial-non-hazardous-secondary-materials>.

For over 20 years, EPA has produced the Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures report that has taken into account the generation and recycling rates of municipal solid wastes. In 2015, the name of the report evolved to reflect the ongoing progress and commitment of the EPA to *Advancing Sustainable Materials Management: Facts and Figures Report*. The report, which was released in June of 2015, is the first report that includes estimates for the generation of construction and demolition (C&D) materials, focusing on steel, wood products, brick, drywall, asphalt concrete and portland cement concrete. In November of 2016, EPA released its *SMM Facts and Figures Fact Sheet* reflecting data from the year 2014.

The Agency is considering the addition of industrial waste generation estimates, as well as estimates of management pathway rates (e.g., landfill, combustion with energy recovery, recycling, BU, and combustion), to future editions of its *Advancing Sustainable Materials Management: Facts & Figures* report series. This addition would support the SMM program's 2017 – 2022 Strategic Plan, which identifies advancing sustainable materials management in the built environment as a key strategic priority area. Because many industrial non-hazardous secondary materials have construction-related beneficial uses, updating national estimates will be critical to tracking progress in this priority area and communicating the results to the public. For more information on the SMM Strategic Plan, see: <https://www.epa.gov/smm/epa-sustainable-materials-management-program-strategic-plan-fiscal-years-2017-2022> . To support such an effort, a scoping study is needed first to develop potential methodologies that may be used by the Agency to estimate generation and management pathway rates.

## **II. Purpose & Objectives**

The purpose of this work assignment is to (1) develop options and recommendations for potential methodologies the Agency may use to estimate national *generation* rates for the selected industrial wastes identified in Table 1 below; (2) develop options and recommendations for potential methodologies the Agency can use to estimate national *management pathway* rates for the industrial wastes identified in Table 1 below; (3) apply the methodologies to estimate national generation rates; and (4) apply the methodologies to estimate national management pathway rates.

*Table 1: Summary of Methodologies to be developed for Selected Wastes*

<b>Waste</b>	<b>Develop Methodology for Generation Rate</b>	<b>Develop Methodology for Management Pathway Rates</b>
Coal Combustion Residuals (Coal Fly Ash, Bottom Ash, Flue-gas Desulfurization (FGD) Material, Boiler Slag)	X	X
Iron and Steel Slag	X	X
Sewage Sludge	X	X
Silica-based spent foundry sand	X	X
Cement Kiln Dust	X	
Mineral Processing Waste	X	
Mining Waste	X	
Pulp and Paper Byproducts	X	

### **III. Scope of Work**

Consistent with the purpose and objectives, the scope of this Work Assignment involves:

- Developing options and recommendation(s) for methodologies that the Agency can potentially use to estimate national generation rates for select industrial wastes; and
- Developing options and recommendation(s) for methodologies that the Agency can potentially use to estimate national management pathway rates for select industrial wastes.
- Using the approved methodologies, estimating generation amounts for the select industrial wastes; and
- Using the approved methodologies, estimating management pathway amounts for the select industrial wastes.

When performing the tasks in this Work Assignment, the Contractor shall provide any and all supporting documents as methodologies are developed and applied. Also, any limitations or foreseen challenges of continuing to use these methodologies in the future shall be raised to the EPA WAM in the deliverables. The Contractor shall also ensure that examined data, sources and calculations are to the highest levels of quality. The Contractor shall conduct the following Tasks to accomplish the objectives of this Scope of Work.

### **IV. Schedule of Tasks**

#### **Task 1: Work Plan, Budget, and Progress Reports**

No later than twenty (20) calendar days after the receipt of the Work Assignment, the Contractor shall prepare and deliver a work plan. The work plan shall include:

1. The level of effort required for each of the tasks;
2. A proposed budget including other direct costs;
3. A schedule for providing deliverables;
4. Names and contact information of key staff working on this work assignment;
5. A description of how each task will be performed and completed; and
6. A plan of how the Contractor will apply quality assurance (QA) to the compiled information.

Upon approval of the work plan, the Contractor shall maintain communication with the WAM at least once every two weeks on the progress of tasks. In addition to the work plan, the Contractor shall prepare and deliver a monthly administrative technical and financial progress report. Each report shall include:

- Descriptions of work performed and deliverables submitted;
- Problems encountered and proposed solutions;
- Anticipated activities for the next reporting period;
- The financial status of the project including the status of remaining funds;
- Any lagging costs and any other requirements; and
- A brief summary of QA activities performed by the Contractor.

**Note on Quality Assurance (QA)**

Because the types of data involved in this work assignment may mostly come from existing secondary sources which have already been subject to QA review (e.g., peer-reviewed journals, and other federal agencies such as the U.S. Geological Survey, the Census Bureau, and the Bureau of Labor Statistics). The QA activities for this work assignment/task order may only require the Contractor to examine data, sources, and calculations to ensure the highest levels of quality in accordance with EPA policies.

**Deliverables for Task 1:** The Contractor shall deliver a one-time completed work plan with the above mentioned criteria, maintain bi-weekly communication and submit monthly progress reports in accordance with the requirements of the Contract.

*Table 2: Deliverables and Due Dates for Task 1*

<b>Deliverable</b>	<b>Due Date</b>
Work Plan	No later than 20 calendar days after the receipt of the Work Assignment
Communication with the EPA WAM	Bi-weekly
Technical and Financial Progress Reports	Monthly

## Task 2: Options & Recommendations for Methodologies to Estimate National Generation Rates for Select Industrial Wastes

The Contractor shall develop and submit options and recommendation(s) (approximately one to three per material, as appropriate) to the EPA for methodologies the Agency could potentially use to estimate national generation rates for the following industrial wastes: coal combustion residuals (CCR), iron and steel slag, sewage sludge, silica-based spent foundry sands, cement kiln dust, mineral processing waste, mining waste and pulp and paper byproducts.

The Contractor shall describe the proposed methodologies (materials flow, survey data, disposal data, etc.) and provide the supporting data sources, calculations and/or other algorithms that would be involved in estimating each type of industrial waste. The Contractor shall build upon the work completed by Industrial Economics, Inc. (IEc) and submitted to the Agency in a March 21, 2016 (Memorandum: Identification of Data Sources). Table 3 provides additional references that can be used as examples of appropriate scope and format for the methodologies.

*Table 3: Example Resources for Scope & Format of Options for Methodologies*

Resource	Location
C&D Methodology Scoping Study Memo	IEc C&D Methodology Scoping Study, September 20, 2012.
Advancing Sustainable Materials Management: Facts and Figures 2013: Appendix A & Appendix B (pp 156-173)	<a href="https://www.epa.gov/sites/production/files/2015-09/documents/2013_advncng_smm_rpt.pdf">https://www.epa.gov/sites/production/files/2015-09/documents/2013_advncng_smm_rpt.pdf</a>
MSW Characterization Methodology	<a href="https://www.epa.gov/sites/production/files/2015-09/documents/06numbers.pdf">https://www.epa.gov/sites/production/files/2015-09/documents/06numbers.pdf</a>

### **Deliverables for Task 2**

The Contractor shall submit, in Microsoft Word format, draft and final options and recommendations for potential methodologies the Agency can use to estimate national generation rates for the above mentioned selected industrial wastes.

*Table 4: Deliverables and Due Dates for Task 2*

Deliverable	Due Date
First Draft Memorandum: Options and Recommendations for Methodologies to Estimate National Generation Rates for Select Industrial Wastes	To be determined (TBD) through a Technical Directive (TD) from the EPA Work Assignment Manager (WAM)
Second Draft Memorandum: Options and Recommendations for Methodologies to Estimate National	Two weeks after receiving final comments on the first draft from the EPA WAM

Generation Rates for Select Industrial Wastes	
Final Memorandum: Options and Recommendations for Methodologies to Estimate National Generation Rates for Select Industrial Wastes	Two weeks after receiving final comments on the second draft from the EPA WAM

### **Task 3: Options & Recommendations for Methodologies to Estimate National Management Pathway Rates for Select Industrial Wastes**

The Contractor shall develop and submit options and recommendation(s) (approximately one to three per material, as appropriate) for methodologies the Agency can potentially use to estimate the national *management* pathway rates for CCR, iron and steel slag, sewage sludge, and silica-based spent foundry sands from iron and steel foundries.

The management pathways shall include, to the extent possible using available data, methodologies for estimating both disposal and beneficial uses of the above-mentioned four waste streams. The pathways described should be as detailed as possible based on the data assessment outlined in Industrial Economics' (IEc)' March 21, 2016 Memorandum: Identification of Data Sources. In particular, the management pathways for beneficial uses should include as much information as possible regarding what segment/type of the waste stream is beneficially used and the way it is managed once generated (e.g., landfill, combustion with energy recovery, beneficial use, etc.) so that a quantitative management pathway can be developed for each waste stream (e.g., of the 100 million tons of CCR generated per year, 50 million tons are used in concrete production, 30 million tons are landfilled and 20 million tons are beneficially used). Depending on the waste stream and available literature, more specific information (e.g., tons of a particular CCR, like FGD, that is beneficially used in a specific application, like agriculture) shall be included. Figure 1 depicts the basic framework for generation and management pathways.

The Contractor shall describe, in electronic memorandum format, the proposed methodologies (e.g., materials flow, survey data, disposal data, etc.) and provide the supporting data sources, calculations and/or other algorithms that would be involved in measuring each type of industrial waste. The Contractor also shall make recommendation(s) as to which methodology(ies) are preferred, explain any limitations regarding the proposed methodologies, and identify any challenges associated with continuing to replicate and/or use the methodologies in the future.

Table 5 provides references that can be used as examples of appropriate scope and format for presenting the options and recommendations for the methodologies.

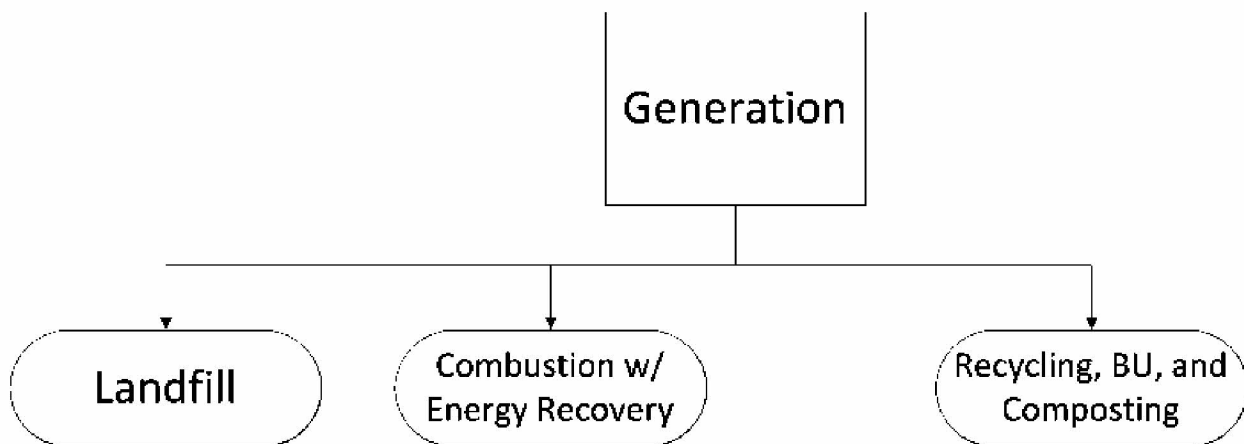


Figure 1: Depiction of generation and management pathways

Table 5: Example Resources for Scope & Format of Options for Methodologies

Resource	Location
C&D Methodology Scoping Study Memo	IEc C&D Methodology Scoping Study, September 20, 2012.
Advancing Sustainable Materials Management: Facts and Figures 2013: Appendix A & Appendix B (pp 156-173)	<a href="http://www.epa.gov/osw/nonhaz/municipal/pubs/2013_advncng_smm_rpt.pdf">http://www.epa.gov/osw/nonhaz/municipal/pubs/2013_advncng_smm_rpt.pdf</a>

### **Deliverables for Task 3:**

The Contractor shall submit, in Microsoft Word format, first and second draft and final options plus recommendations for potential methodologies the Agency can use to estimate national management pathways for the selected industrial wastes.

Table 6: Deliverables and Due Dates for Task 3

Deliverable	Due Date
First Draft: Options & Recommendations for Methodologies to Estimate National Management Pathway Rates for Select Industrial Wastes	TBD through a TD from the EPA WAM
Second Draft: Options & Recommendations for Methodologies to Estimate National Management Pathway Rates for Select Industrial Wastes	Two weeks after receiving final comments on the first draft from the EPA WAM
Final Draft: Options & Recommendations for Methodologies to Estimate National Management Pathway Rates for Select Industrial Wastes	Two weeks after receiving final comments on the second draft from the EPA WAM

## **Task 4: Application of Methodologies to Estimate National Generation Rates for Select Industrial Wastes**

Upon approval by the EPA WAM, the Contactor shall apply the generation methodologies to estimate the national generation amounts for the following industrial wastes: CCR, iron and steel slag, sewage sludge, silica-based spent foundry sands, cement kiln dust, mineral processing waste, mining waste and pulp and paper byproducts. The application of the methodologies shall be performed in order to estimate the quantity of wastes generated per year. To the extent that the information is readily and easily available, the Contractor shall report on quantities produced from past years as well as the present.

The Contractor shall provide the supporting data, data sources, calculations and/or other algorithms that would be involved in this application of the methodologies. Also, any limitations or proposed challenges of continuing to use the methodologies in the future shall be raised to the EPA WAM in the deliverables.

### **Deliverables for Task 4:**

The Contractor shall submit, in Microsoft Word format, estimates for national management pathway rates for the selected industrial wastes.

*Table 7: Deliverables and Due Dates for Task 4*

<b>Deliverable</b>	<b>Due Date</b>
First Draft: Estimation of National Generation rates for Select Industrial Wastes	TBD through a TD from the EPA WAM
Second Draft: Estimation of National Generation for Select Industrial Wastes	Two weeks after receiving final comments on the first draft from the EPA WAM
Final Draft: Estimation of National Generation for Select Industrial Wastes	Two weeks after receiving final comments on the second draft from the EPA WAM

## **Task 5: Application of Methodologies to Estimate National Management Pathway Rates for Select Industrial Wastes**

Upon approval by the EPA WAM, the Contactor shall apply the management pathway methodologies for the following industrial wastes: CCR, iron and steel slags, silica-based spent foundry sands, and sewage sludge. The application of the methodologies shall be performed in order to estimate the quantity of wastes managed by pathways, if possible (including pathways such as recovery and disposal) per year.

The Contractor shall provide the supporting data, data sources, calculations and/or other algorithms that would be involved in this application of the methodologies. Also, any limitations

or proposed challenges of continuing to use the methodologies in the future shall be raised to the EPA WAM in the deliverables.

**Deliverables for Task 5:**

The Contractor shall submit, in Microsoft Word format, estimates for national management pathway rates for the selected industrial wastes.

*Table 8: Deliverables and Due Dates for Task 5*

<b>Deliverable</b>	<b>Due Date</b>
First Draft: Estimation of National Management Pathway Rates for Select Industrial Wastes	TBD through a TD from the EPA WAM
Second Draft: Estimation of National Management Pathway Rates for Select Industrial Wastes	Two weeks after receiving final comments on the first draft from the EPA WAM
Final Draft: Estimation of National Management Pathway Rates for Select Industrial Wastes	Two weeks after receiving final comments on the second draft from the EPA WAM

**Task 6: Scoping Study Final Report**

Under this Task, the Contractor shall compile and integrate the final drafts of the memoranda produced under Tasks 2-5 to serve as the basis for the Final Report. The report, which can be in Microsoft Word format, shall document the following:

- Options and recommendations for methodologies estimating national generation rates for select industrial wastes (Task 2);
- Options and recommendations for methodologies estimating management pathway rates for select industrial wastes (Task 3);
- Application of the generation rates to determine actual amounts for select industrial wastes (Task 4);
- Application of the generation and management pathway rates to determine actual amounts for select industrial wastes (Task 5).

In addition to the above-mentioned items, the final report shall be 508 compliant.

*Table 9: Deliverables and Due Dates for Task 6*

<b>Deliverable</b>	<b>Due Date</b>
First Draft: Scoping Study Final Report	TBD through a TD from the EPA WAM
Second Draft: Scoping Study Final Report	Two weeks after receiving final comments on the initial from the EPA WAM



<b>Deliverable</b>	<b>Due Date</b>
Final Draft: Scoping Study Final Report	Two weeks after receiving final comments on the second draft from the EPA WAM

## V. Summary Schedule of Deliverables

*Table 10: Deliverables and Due Dates for all Tasks*

<b>Industrial Waste Generation Scoping Study</b>	
<b>Deliverable</b>	<b>Due Date</b>
<b>Task 1: Work Plan, Budget, and Progress Reports</b>	
Work Plan	No later than 20 calendar days after the receipt of the Work Assignment
Bi-weekly communication with the EPA WAM	Ongoing
Monthly Progress Reports	In conformance to the requirements of the contract
<b>Task 2: Options &amp; Recommendations for Methodologies to Estimate National Generation Rates for Select Industrial Wastes</b>	
First Draft Memorandum: Options and Recommendations for Methodologies to Estimate National Generation Rates for Select Industrial Wastes	TBD through a TD from the EPA WAM
Second Draft Memorandum: Options and Recommendations for Methodologies to Estimate National Generation Rates for Select Industrial Wastes	Two weeks after receiving final comments on the first draft from the EPA WAM
Final Memorandum: Options and Recommendations for Methodologies to Estimate National Generation Rates for Select Industrial Wastes	Two weeks after receiving final comments on the second draft from the EPA WAM
<b>Task 3: Options &amp; Recommendations for Methodologies to Estimate National Management Pathway Rates for Select Industrial Wastes</b>	
First Draft: Options & Recommendations for Methodologies to Estimate National Management Pathway Rates for Select Industrial Wastes	TBD through a TD from the EPA WAM
Second Draft: Options & Recommendations for Methodologies to Estimate National Management Pathway Rates for Select Industrial Wastes	Two weeks after receiving final comments on the first draft from the EPA WAM

<b>Industrial Waste Generation Scoping Study</b>	
<b>Deliverable</b>	<b>Due Date</b>
Final Draft: Options & Recommendations for Methodologies to Estimate National Management Pathway Rates for Select Industrial Wastes	Two weeks after receiving final comments on the second draft from the EPA WAM
<b>Task 4: Application of Methodologies to Estimate National Generation Rates for Select Industrial Wastes</b>	
First Draft: Estimation of National Generation for Select Industrial Wastes	TBD through a TD from the EPA WAM
Second Draft: Estimation of National Generation for Select Industrial Wastes	Two weeks after receiving final comments on the first draft from the EPA WAM
Final Draft: Estimation of National Generation Rates for Select Industrial Wastes	Two weeks after receiving final comments on the first draft from the EPA WAM
<b>Task 5: Application of Methodologies to Estimate National Management Pathway Rates for Select Industrial Wastes</b>	
First Draft: Estimation of National Management Pathway Rates for Select Industrial Wastes	TBD through a TD from the EPA WAM
Second Draft: Estimation of National Management Pathway Rates for Select Industrial Wastes	Two weeks after receiving final comments on the first draft from the EPA WAM
Final Draft: Estimation of National Management Pathway Rates for Select Industrial Wastes	Two weeks after receiving final comments on the first draft from the EPA WAM
<b>Task 6: Scoping Study Final Report</b>	
First Draft: Scoping Study Final Report	TBD through a TD from the EPA WAM
Second Draft: Scoping Study Final Report	Two weeks after receiving final comments on the initial draft from the EPA WAM
Final Draft: Scoping Study Final Report	Two weeks after receiving final comments on the second draft from the EPA WAM

## **VI. Other Contractor Requirements**

The Contractor shall comply with all applicable requirements of the contract, including compliance with quality-assurance requirements, providing monthly invoices detailing progress and notifying the WAM of the status of remaining funds, and other requirements.

All hard copy and electronic data collected for the purposes of analyses under WA 4-26 and future Amendments shall be shared with the EPA WAM. Similarly, any algorithms, electronic spreadsheets and/or modeling tools generated by the Contractor, for the purposes of analyses conducted to meet the SOW for WA 4-26 and any future Amendments, shall be shared with the EPA WAM. The final report shall be 508 compliant.



United States Environmental Protection Agency  
Washington, DC 20460

### Work Assignment

Work Assignment Number  
4-27

☐ Other ☐ Amendment Number:

*Base*

Contract Number  
EP-W-12-013

Contract Period 04/30/2016 To 04/29/2017  
Base Option Period Number 4

Title of Work Assignment/SF Site Name  
CCR State Solid Waste Mgmt Pla

Contractor  
INDUSTRIAL ECONOMICS, INCORPORATED

Specify Section and paragraph of Contract SOW

Purpose: ☒ Work Assignment ☐ Work Assignment Close-Out  
☐ Work Assignment Amendment ☐ Incremental Funding  
☐ Work Plan Approval

Period of Performance

From 04/30/2016 To 04/29/2017

Comments:

This initiate WA 4-27 "CCR State Solid Waste Mgmt Plans". Craig Dufficy is appointed the work assignment manager. The statement of work is attached. The contractor shall submit a work plan/cost estimate. Also, the contractor is not authorize to incur cost until 4/30/2016.

☐ Superfund

#### Accounting and Appropriations Data

☒ Non-Superfund

SFO  
(Max 2) 22

Note: To report additional accounting and appropriations data use EPA Form 1900-69A.

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

#### Authorized Work Assignment Ceiling

Contract Period: 04/30/2016 To 04/29/2017 Cost/Fee: LOE: 0

This Action: 0

Total: 0

#### Work Plan / Cost Estimate Approvals

Contractor WP Dated: Cost/Fee: LOE:

Cumulative Approved: Cost/Fee: LOE:

Work Assignment Manager Name Craig Dufficy

Branch/Mail Code:

Phone Number: 703-308-9037

FAX Number:

(Signature)

(Date)

Project Officer Name Shannon Sturgeon

Branch/Mail Code:

Phone Number: 703-605-0509

FAX Number: 703-308-7903

(Signature)

(Date)

Other Agency Official Name

Branch/Mail Code:

Phone Number:

FAX Number:

(Signature)

(Date)

Contracting Official Name Eulvid Rocque

Branch/Mail Code:

Phone Number: 202-564-8316

FAX Number:

(Signature)

(Date)

EPA Contract No. EP-W-12-013/4

Statement of Work

Work Assignment No. 4-27

Title: Technical Support for Developing CCR Rule Requirements

Work Assignment Manager: Craig Dufficy

Address: Office of Solid Waste and Emergency Response  
Materials Recovery and Waste Management Division (MRWMD)  
1200 Pennsylvania Ave., NW/Mail Code 5304P  
Washington, DC 20460  
Phone No. (703) 308-9037

**Background:** EPA finalized national regulations to provide a comprehensive set of requirements for the safe disposal of coal combustion residuals (CCRs), commonly known as coal ash, from coal-fired power plants. The final rule is the culmination of extensive study on the effects of coal ash on the environment and public health. The rule establishes technical requirements for CCR landfills and surface impoundments under subtitle D of the Resource Conservation and Recovery Act (RCRA), the nation's primary law for regulating solid waste. The final rule makes a number of changes from the proposal including providing greater clarity on technical requirements in response to questions received during the comment period.

These regulations address the risks from coal ash disposal -- leaking of contaminants into ground water, blowing of contaminants into the air as dust, and the catastrophic failure of coal ash surface impoundments. Additionally, the rule sets out recordkeeping and reporting requirements as well as the requirement for each facility to establish and post specific information to a publicly-accessible website. This final rule also supports the responsible recycling of CCRs by distinguishing safe, beneficial use from disposal.

The CCR rule is self-implementing and imposes minimum federal requirements directly on facilities. However, this rule will best achieve its protections where states adopt regulations, as necessary, that are at least as stringent as the federal regulations. In an effort to ensure that the final rule requirements would meet federal requirements, the EPA is requiring facilities to obtain third party certifications and to provide state and public notifications of actions required to comply with the rule requirements.

As part of the notification requirements, the EPA requires all owners and operators to create and maintain an operating record and publically accessible Web site, containing comprehensive documentation of compliance with the rule. The rule also establishes specific timeframes by which these actions must occur, including timeframes by which facilities must document compliance with the various technical requirements in the rule. Timeframes have been

established for: 1) Technical compliance demonstrations made by the owner or operator; 2) certifications made by a qualified professional engineer verifying the technical accuracy and veracity of the compliance demonstration; 3) notifications made to the State Director; 4) submittals (e.g., data, reports and other documentation) to the operating record; and 5) postings to the owner or operator's publically accessible internet site.

### **Purpose and Scope**

The purpose of this work assignment is to provide assistance to Headquarters and the Regional Offices in conducting technical evaluations of compliance requirements that each owner or operator must submit as requirements described in the recordkeeping, notification, and posting information to the internet section of the regulations published in the CCR rule.

The work assignment also includes the development of example data sheets, materials and verification of web postings submitted by owners and operators as part of the requirements of the CCR rule.

The work assignment would also provide for assistance with documenting and tracking of technical decisions to ensure consistent approaches across regions.

### **Work Statement/Cost Estimate**

#### **Task 1: Work Plan.**

Within 20 days of receipt of this work assignment, the contractor shall deliver a management work plan, including a proposed level of effort, budget, and schedule for all tasks. This task also includes the monthly reporting requirement.

**Deliverables:** Work plan and monthly reports.

#### **Task 2: Assistance with Reviewing the Requirements for Recordkeeping, Notification, and Web posting Information.**

The CCR rule contains a number of provisions requiring the owner or operator to document their compliance with the rule's technical requirements and to post those documents on a publically available web site in a timely and transparent manner.

**Deliverables:** Memo summarizing what owners and operators must submit and documenting any current web postings.

#### **Task 3: Develop Standard submittal Forms**

This task includes the development of standard forms, notifications, web posting history, and any additional checklists or forms needed to assist Headquarters and the regions with the review process of the documentation compliance

**Deliverables:** Standard submittal forms.

#### **Task 4: Develop a database to document and track documentation requirements**

This task includes developing and documenting a database to include all of the the CCR rule's compliance for recordkeeping, notification and web posting requirements. This system will be used by Headquarters and the regions to review what documentation has been submitted in order to ensure consistent approaches across the regions.

**Deliverables:** Tracking Spreadsheet

#### **Schedule**

1. Work Plan (Task 1)
2. Assistance with Reviewing requirements (Task 2)
3. Develop Materials (Task 3)
4. Develop database to document and track Notifications (Task 4)

#### **Milestone**

- 20 days after receipt of WA
- 30 days after completion of task 1
- 60 days after completion of task 2
- 60 days after completion of task 3

### **Other Contractor Requirements**

#### **CONTRACTOR COMMUNICATIONS**

Upon approval of the Work Plan, the Contractor shall maintain at least weekly communications with the Work Assignment Manager regarding the status of work on the Work Assignment.

#### **TECHNICAL DIRECTION**

The Designated Work Assignment Manager (WAM) on this Work Assignment is authorized to provide technical direction to the extent allowed under EPAAR (1552.237-71) (APR 1984) (DEVIATION). Other than the Designated WAM, only the Project Officer and the Contracting Officer are authorized to provide technical direction.

Technical direction will include:

- (1) Direction to the Contractor, if necessary, to assist the Contractor in accomplishing the Statement of Work.
- (2) Comments on and approval/acceptance of reports or other deliverables.

Technical direction must be within the contract and the Work Assignment statement of work. The Project Officer and the WAM **do not** have the authority to issue technical direction which (1) institutes additional work outside the scope of either the contract or this Work Assignment; (2) constitutes a change as defined

in the "Changes" clause; (3) causes an increase or decrease in the estimated cost of the contract or Work Assignment; (4) alters the period of performance; or (5) changes any of the other express terms or conditions of the contract or Work Assignment.

Technical direction will be issued in writing or confirmed in writing within five (5) calendar days after oral issuance. The technical direction memorandum will be provided to the Contractor and copies will be forwarded to the Contracting Officer and the Project Officer. If the Contractor has not received written confirmation within five (5) calendar days of an oral issuance, the Contractor must so notify the Project Officer.

### **Data Collection**

The contractor shall comply with all requirements delineated in EPA Order 5360.1A2r, EPA Manual 5360.A1, and OSWER's and OSW's Quality Management Plans, available from QA Coordinators. See also EPA Website: [http://www.epa.gov/quality/qa\\_docs.html](http://www.epa.gov/quality/qa_docs.html). If direct measurement is required the contractor shall prepare a Quality Assurance Project Plan (QAPP), written to address applicable sections of EPA requirements for QA Project Plans, EPA QA/R-5, December 2002, as required in the contract. The submittal of the QAPP and the review by the appropriate QA Coordinator will occur prior to any direct sampling or measurement.



<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>		Work Assignment Number 4-27								
		<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001								
Contract Number EP-W-12-013	Contract Period   04/30/2012   To   04/29/2017 Base                      Option Period Number      4	Title of Work Assignment/SF Site Name TechSupt for CCR Rule Dev.								
Contractor INDUSTRIAL ECONOMICS, INCORPORATED		Specify Section and paragraph of Contract SOW								
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval		Period of Performance  From   04/30/2016   To   04/29/2017								
Comments: The purpose of this amendment is to approve the contractor's work plan/cost estimate dated May 23, 2016 with a level of effort of 634 hours and \$60,897.96 (b)(4) cost (b)(4) fee). The contractor cannot go over the approved ceiling without the authorization from the Contracting Officer.										
<input type="checkbox"/> Superfund                      Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO    22                      Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
04/30/2012   To   04/29/2017				0						
This Action:				634						
Total:				634						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name    Craig Dufficy						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 703-308-9037				
						FAX Number:				
Project Officer Name    Shannon Sturgeon						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 703-605-0509				
						FAX Number: 703-308-7903				
Other Agency Official Name						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number:				
						FAX Number:				
Contracting Official Name    Eulvid Rocque						Branch/Mail Code:				
_____ (Signature)                      (Date)						Phone Number: 202-564-8316				
						FAX Number:				

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-27				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002				
Contract Number EP-W-12-013			Contract Period   04/30/2016   To   10/29/2017 Base                      Option Period Number       4			Title of Work Assignment/SF Site Name CCR State Solid Waste Mgmt				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   04/30/2016   To   04/29/2017				
Comments: This amendment increases the LOE 395 hours. The total LOE is now 1,230 hours. The statement of work is attached. The contractor shall submit a work plan/cost estimate.										
<input type="checkbox"/> Superfund    Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations date use EPA Form 1900-69A.										
SFO <input type="checkbox"/> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:			LOE:					
04/30/2016   To   10/29/2017										
This Action:										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee			LOE:			
Cumulative Approved:				Cost/Fee			LOE:			
Work Assignment Manager Name   Craig Dufficy							Branch/Mail Code:			
_____ (Signature)    (Date)							Phone Number: 703-308-9037			
							FAX Number:			
Project Officer Name   Shannon Sturgeon							Branch/Mail Code:			
_____ (Signature)    (Date)							Phone Number: 703-605-0509			
							FAX Number: 703-308-7903			
Other Agency Official Name   Eulvid Rocque							Branch/Mail Code:			
_____ (Signature)    (Date)							Phone Number: 202-564-8316			
							FAX Number:			
Contracting Official Name   Mark Heare							Branch/Mail Code:			
_____ (Signature)    (Date)							Phone Number: 202-564-4774			
							FAX Number:			

EPA Contract No. EP-W-12-013/4

Statement of Work

Work Assignment No. 4-27 Amendment 2

Title: Technical Support for Developing CCR Rule Requirements

Work Assignment Manager: Craig Dufficy

Address: Office of Solid Waste and Emergency Response  
Materials Recovery and Waste Management Division (MRWMD)  
1200 Pennsylvania Ave., NW/Mail Code 5304P  
Washington, DC 20460  
Phone No. (703) 308-9037

**Background:** EPA finalized national regulations to provide a comprehensive set of requirements for the safe disposal of coal combustion residuals (CCRs), commonly known as coal ash, from coal-fired power plants. The final rule is the culmination of extensive study on the effects of coal ash on the environment and public health. The rule establishes technical requirements for CCR landfills and surface impoundments under subtitle D of the Resource Conservation and Recovery Act (RCRA), the nation's primary law for regulating solid waste. The final rule makes a number of changes from the proposal including providing greater clarity on technical requirements in response to questions received during the comment period.

These regulations address the risks from coal ash disposal -- leaking of contaminants into ground water, blowing of contaminants into the air as dust, and the catastrophic failure of coal ash surface impoundments. Additionally, the rule sets out recordkeeping and reporting requirements as well as the requirement for each facility to establish and post specific information to a publicly-accessible website. This final rule also supports the responsible recycling of CCRs by distinguishing safe, beneficial use from disposal.

The CCR rule is self-implementing and imposes minimum federal requirements directly on facilities. However, this rule will best achieve its protections where states adopt regulations, as necessary, that are at least as stringent as the federal regulations. In an effort to ensure that the final rule requirements would meet federal requirements, the EPA is requiring facilities to obtain third party certifications and to provide state and public notifications of actions required to comply with the rule requirements.

As part of the notification requirements, the EPA requires all owners and operators to create and maintain an operating record and publically accessible Web site, containing comprehensive documentation of compliance with the rule. The rule also establishes specific timeframes by which these actions must occur, including timeframes by which facilities must document compliance with the various technical requirements in the rule. Timeframes have been

established for: 1) Technical compliance demonstrations made by the owner or operator; 2) certifications made by a qualified professional engineer verifying the technical accuracy and veracity of the compliance demonstration; 3) notifications made to the State Director; 4) submittals (e.g., data, reports and other documentation) to the operating record; and 5) postings to the owner or operator's publically accessible internet site.

In December 2016, The President signed the Waste Infrastructure Improvements for the nation (WIIN). Found in section 2301 of the WIIN is a provision to amend Section 4005 of RCRA, that allows states develop a permitting program for the operation and disposal of CCR material based on EPA's new CCR regulations set forth in 40 CFR Part 257. EPA's CCR regulations will remain in effect until a states' permitting plan is submitted, reviewed, and approved. States have the option to submit program review and approval, or not, and continue to operate under the provisions of 40 CFR Part 257. The EPA's review of a state program will follow the guidelines of 40 CFR Part 239, Requirements for State Permit Program Determination of Adequacy.

### **Purpose and Scope**

The purpose of this work assignment is to provide assistance to Headquarters and the Regional Offices in conducting technical evaluations of compliance requirements that each owner or operator must submit as requirements described in the recordkeeping, notification, and posting information to the internet section of the regulations published in the CCR rule.

The work assignment also includes the development of example data sheets, materials and verification of web postings submitted by owners and operators as part of the requirements of the CCR rule.

The work assignment would also provide for assistance with documenting and tracking of technical decisions to ensure consistent approaches across regions.

### **Work Statement/Cost Estimate**

#### **Task 1: Work Plan.**

Within 20 days of receipt of this work assignment, the contractor shall deliver a management work plan, including a proposed level of effort, budget, and schedule for all tasks. This task also includes the monthly reporting requirement.

**Deliverables:** Work plan and monthly reports.

#### **Task 2: Assistance with Reviewing the Requirements for Recordkeeping, Notification, and Web posting Information.**

The CCR rule contains a number of provisions requiring the owner or operator to document their compliance with the rule's technical requirements and to post those documents on a publically available web site in a timely and transparent manner.

**Deliverables:** Memo summarizing what owners and operators must submit and documenting any current web postings.

**Task 2A: Assistance with Reviewing and Developing the Requirements for CCR State Permit Program Approval.**

The WIIN rule contains a number of provisions and deadlines that requires the EPA to review state submitted plans which can be approved in whole or in part. If the EPA disapproves a state program, the WIIN rule establishes the EPA to develop a system for the state to correct any deficiencies.

**Deliverables:** Develop tables and or spreadsheets summarizing what states must submit and documenting any current state regulations web postings. Also create tables and or spreadsheets detailing any state deficiencies.

**Task 3: Develop Standard Submittal Forms**

This task includes the development of standard forms, notifications, web posting history, and any additional checklists or forms needed to assist Headquarters and the regions with the review process of the documentation compliance

**Deliverables:** Standard submittal forms.

**Task 4: Develop a database to document and track documentation requirements**

This task includes developing and documenting a database to include all of the the CCR rule's compliance for recordkeeping, notification and web posting requirements. This system will be used by Headquarters and the regions to review what documentation has been submitted in order to ensure consistent approaches across the regions.

**Deliverables:** Tracking Spreadsheet

**Schedule**

1. Work Plan (Task 1)
2. Assistance with Reviewing requirements (Task 2)
3. Assistance with State Permit Programs (Task 2A)
4. Develop Materials (Task 3)
5. Develop database to document and track Notifications (Task 4)

**Milestone**

- 20 days after receipt of WA
- 30 days after completion of task 1
- 60 days after completion of task 2
- 60 days after completion of task 2A
- 60 days after completion of task 3

## **Other Contractor Requirements**

### **CONTRACTOR COMMUNICATIONS**

Upon approval of the Work Plan, the Contractor shall maintain at least weekly communications with the Work Assignment Manager regarding the status of work on the Work Assignment.

### **TECHNICAL DIRECTION**

The Designated Work Assignment Manager (WAM) on this Work Assignment is authorized to provide technical direction to the extent allowed under EPAAR (1552.237-71) (APR 1984) (DEVIATION). Other than the Designated WAM, only the Project Officer and the Contracting Officer are authorized to provide technical direction.

Technical direction will include:

- (1) Direction to the Contractor, if necessary, to assist the Contractor in accomplishing the Statement of Work.
- (2) Comments on and approval/acceptance of reports or other deliverables.

Technical direction must be within the contract and the Work Assignment statement of work. The Project Officer and the WAM **do not** have the authority to issue technical direction which (1) institutes additional work outside the scope of either the contract or this Work Assignment; (2) constitutes a change as defined in the "Changes" clause; (3) causes an increase or decrease in the estimated cost of the contract or Work Assignment; (4) alters the period of performance; or (5) changes any of the other express terms or conditions of the contract or Work Assignment.

Technical direction will be issued in writing or confirmed in writing within five (5) calendar days after oral issuance. The technical direction memorandum will be provided to the Contractor and copies will be forwarded to the Contracting Officer and the Project Officer. If the Contractor has not received written confirmation within five (5) calendar days of an oral issuance, the Contractor must so notify the Project Officer.

## **Data Collection**

The contractor shall comply with all requirements delineated in EPA Order 5360.1A2r, EPA Manual 5360.A1, and OSWER's and OSW's Quality Management Plans, available from QA Coordinators. See also EPA Website: [http://www.epa.gov/quality/qa\\_docs.html](http://www.epa.gov/quality/qa_docs.html). If direct measurement is required the contractor shall prepare a Quality Assurance Project Plan (QAPP), written to address applicable sections of EPA requirements for QA Project Plans, EPA QA/R-5, December 2002, as required in the contract. The submittal of the QAPP and the review by the appropriate QA Coordinator will occur prior to any direct sampling or measurement.

<b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <b>Work Assignment</b>						Work Assignment Number 4-27				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000003				
Contract Number EP-W-12-013			Contract Period   04/30/2016   To   10/29/2017 Base <input checked="" type="checkbox"/> Option Period Number			Title of Work Assignment/SF Site Name				
Contractor INDUSTRIAL ECONOMICS, INCORPORATED					Specify Section and paragraph of Contract SOW					
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance  From   04/30/2016   To   04/29/2017				
Comments:										
<input type="checkbox"/> Superfund    Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE:				
04/30/2016   To   10/29/2017										
This Action:										
Total:										
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:					Cost/Fee			LOE:		
Cumulative Approved:					Cost/Fee			LOE:		
Work Assignment Manager Name   Craig Dufficy  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number: 703-308-9037			
							FAX Number:			
Project Officer Name   Shannon Sturgeon  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number: 703-605-0509			
							FAX Number: 703-308-7903			
Other Agency Official Name  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number:			
							FAX Number:			
Contracting Official Name   Mark Heare  <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>							Branch/Mail Code:			
							Phone Number: 202-564-4774			
							FAX Number:			